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American Woman's Society of Certified Public Accountants

American Society of Women Accountants

The Woman CPA

WINTER 1990

VOLUME 52

NUMBER 1

- Pensions
- Productivity Measures
- Gender-Issues

Editorial Notes

The beginning of this new decade is bringing many exciting changes to *The Woman CPA*. For our Winter issue, we have a first-time editor, a different look, an important new department, and revised instructions to authors.

This is my first issue as editor. I am replacing Lillian Parrish, who has been an outstanding editor over the past three years. I'm still at the top of the learning curve, so Lillian's help and advice has been invaluable to me during this transition period. Lillian, I'd like to express my deepest appreciation. You are a tough act to follow.

Last year's executive committee for TWCPA approved a new logo which we have introduced in this first issue of the 1990's. This gives a more upbeat appearance to the face of our journal. Since this is a quarterly publication, our issues will be designated as seasons rather than months. Also, we're adopting seasonal colors; blue for winter, yellow for spring, green for summer, and red for fall. Because of many recent advances in the fields of graphics, desktop publishing, and printing, we have available resources to make our publication esthetically pleasing. Although appearance is important, we are a professional journal, and as such, content will always be our top priority.

The most important substantive change for *The Woman CPA* is the addition of a Gender Issues Department. Karen Hooks, who has an impressive publication record, including numerous gender related articles, is the first editor for our new department. Since Karen has complete control over the form and content of this department, she has the privilege of introducing it to you in this issue. Make it one of your "must read" articles!

We have revised the title of our Manuscript Guidelines to Instructions to Authors and included it on the last page of this issue. We have more explicitly stated our editorial philosophy which is in keeping with the objectives of our two sponsoring organizations, ASWA and AWSCPA. Although we do publish some theoretical articles, we are primarily a professional rather than an academic journal. We are dropping the submission fee in order to attract more articles of a practical nature.

Being named Editor of *The Woman CPA* has been a great honor for me. The publication of my first edition has been a real challenge but I would be less than honest if I didn't admit that I'm cautiously navigating my course. A journal is only as successful as the satisfaction of its readers. I encourage your feedback. All of us together can maintain the high quality of our journal.

Betty Brown

The Spring issue includes articles on:

- *Government Accounting Standards*
- *Government Auditing Standards*
- *Expert Systems*

And more ...

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ARTICLES

DEPARTMENTS

New Pension Laws: Problems or Solutions?

By Sarah C. Dawkins and Nancy G. Boyd

Introduction

The Pension Reform Act of 1987 amended the Internal Revenue Code of 1986 and Title I of the Employee Retirement Income Security Act (ERISA) of 1974 with regard to pension integration, participation, and requirements for vesting. The Financial Accounting Standards Board (FASB) has also been active in determining how pensions should be treated. The FASB has released Statement of Financial Accounting Standards No 87 which took effect in 1989. (This topic is covered in another article in this issue.)The new tax law will have far-reaching effects in the business world as it will affect all accrued pension benefits existing in the year 1989 and thereafter.

Background

The Tax Reform Act of 1986 changed certain stipulations involving pensions. The most important change was to shorten the vesting period - the time required for employees to be on the job before they are entitled to pension benefits - from 10 years to 5 years. This was viewed as a way to provide greater retirement security.

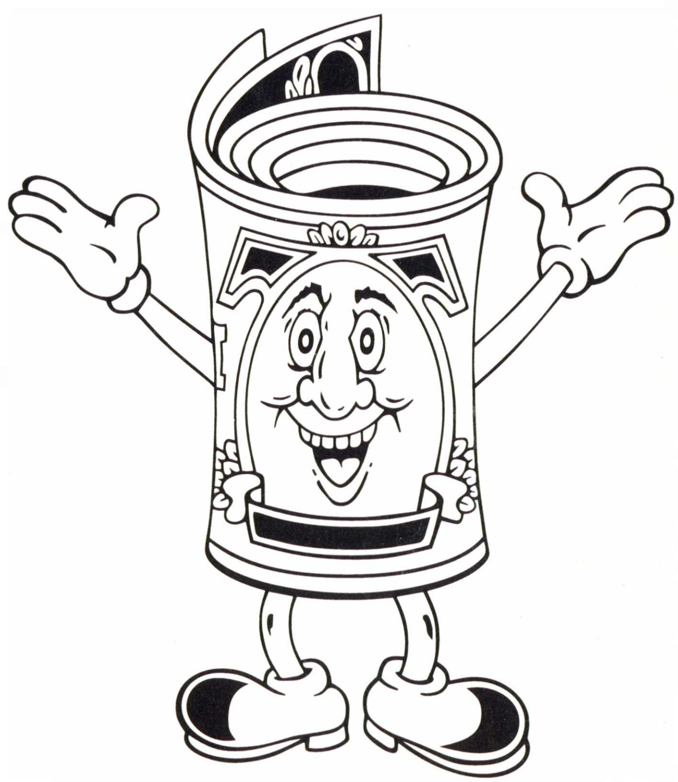
Starting in 1987, any early withdrawals from all types of retirement plans are subject to a 10% penalty.

In 1974, ERISA had set forth three alternative schedules for the vesting of employees' accrued benefits. One alternative gave a graduated step vesting that started with 25 percent vesting after five years of service and increased at 5 to 10 percent thereafter, so that employees' accrued benefits would be 100 percent vested after 15 years. Another schedule allowed 100 percent vesting of accrued benefits after ten years of service, and the third alternative is referred to as the "rule of 45." This alternative accrued benefits of an employee with 5 or more years of service and provided for 50 percent vesting when the sum of a person's age and service equal 45, with 10 percent additional vesting for each year of service.

The 1986 Tax Reform Act changed the time required for vesting under the second alternative from 10 to 5 years. Previously, under the ERISA's second option, unless an employee stayed on the same job for 10 years, the employee was not vested in the pension plan. The person would have nothing to look forward to in terms of pension benefits. Under the new law, if an employee is on the job when the new vesting rules go into effect, the employee gets full credit for the number of years already worked [Tax Reform, p. 14].

In addition, after 1986, employers can offer employees two options with regard to compensation. The first option is to receive all compensation in cash. The second option is for the employee to contribute up to a maximum of $7,000 of compensation to a simplified employee pension. The $7,000 limit applies to all elective deferrals by an individual under all cash or deferred arrangements in the individual's tax year. Any monies put into the simplified employee pension are not taxed until withdrawn after age 59½. If withdrawn before that time, there is a 10% penalty.

The Tax Reform Act of 1986 also brought changes in the area of who qualifies for the pension plan. Prior to the



Because lump-sum payments and cashouts reduce retirement benefits, Congress is investigating ways to make pensions portable.

law, employers could ignore making contributions for employees who earned low wages, as long as the contribution plan was coordinated with Social Security. Under the Tax Reform Act of 1986, the employer is specifically prohibited from discriminating in favor of employees who are highly paid, or shareholders, or officers. Now, if a plan exists, all employees will receive some retirement benefits provided by the employer in addition to the benefits received under Social Security.

The Tax Reform Act of 1986 changed the penalty associated with withdrawals from a retirement plan. Prior regulations permitted withdrawals and only regulated that these withdrawals would be taxable. However, no penalty was imposed if the use of the funds was for personal reasons. Starting in 1987, any early withdrawals from all types of retirement plans are subject to a 10% penalty. Exceptions to the 10% penalty are when there are rollovers from IRA's and other plans, life annuities, early retirement, or certain cases of hardship.

The latest bill concerning pensions, the Pension Reform Act of 1987, has opened up the issue of pensions even more than was done by the Tax Reform Act of 1986. As a result of the Pension Reform Act of 1987, several bills have been introduced that address the issue of portability of pensions.

Pending Legislation

In the past, when an employee quit a job, the employee could receive a lump-sum payment for the vested pension amount. The result was, more often than not, a case where the employee spent the money rather than re-investing it in a pension-type retirement plan. Consequently, when that employee is ready to retire, the amount of funds available for retirement will have been reduced by the amount of money received in the lump-sum payments [Geisel, p. 1]. Currently, 81% of defined contribution retirement plans pay out a lump sum when an employee terminates his employment. In addition, 39% of the plans have a provision for a cashout of the plan [Bodnar, p. 9]. The future stream of retirement benefits to supplement social security benefits is interrupted anytime a lump-sum payment or cashout is allowed.

Because lump-sum payments and cashouts reduce retirement benefits, Congress is investigating ways to make pensions portable. One such bill establishes guidelines for employees who leave one job and go to another before retirement age. The bill proposes that an employee would transfer accumulated pension funds to the next employer's defined contribution plan or to an Individual Retirement Account. In either case, the funds would remain invested until retirement age. Another option would be for the employee to leave the funds in the pension plan of the former employer. Basically, the bill prohibits any lump-sum distributions before retirement from a pension plan except in cases of death, disability, medical care expenses, or to invest in a plan for employee stock ownership [Geisel, p. 37].

Another recent pension bill, the Pension Portability Act of 1987, proposes to have employees transfer pension plan distributions to outside accounts under the control of asset managers, banks, and insurance companies. Companies would offer workers various plans that would be administered by asset managers who would deal with reporting requirements and red tape. Under this proposal, all sizes of companies would benefit, especially smaller companies who could provide retirement benefits without the large expense of administrative costs [Perlman, p. 10].

One problem for employers under the proposed bills is information dissemination.

Current Problems

Many companies have opted to cash out their pension plans rather than continue to administer them. A company can opt to terminate a plan that requires that the plan assets be used for the exclusive benefit of the plan participant and beneficiaries. In this way, a company can eliminate the problems of dealing with the pension plan and at the same time recapture plan assets that were not available as long as the plan remained in force. This has been a growing problem in the area of

Employers will be responsible for taking care of the transfer of funds from their plan to another employer's plan when an employee changes jobs.

pensions. Terminations of 1,100 defined benefit pension plans have occurred since 1980, and almost 1.5 million participants are no longer covered. Meanwhile, the termination of these 1,100 plans has provided the companies with $12 billion in surplus assets. When a plan is terminated, the company is required to provide for benefits accumulated up to that point by everyone who is covered by the plan. The plan stops and the pension benefits accumulated to date provide the employee with a fixed pension rather than one that can continue to grow and be adjusted for higher salary bases and cost-of-living increases [Hodge, p. 50].

The Pension Assets Protection Act of 1987 has been introduced into Congress. Its aim is to prohibit the recapture of excess pension assets from terminated defined benefit pension plans. The act would do away with the loop-hole that now exists for corporations who want to get their hands on excess assets and in the process, eliminate pension plans for their employees [Perlman, p. 11].

Pros and Cons

The main argument for the bill to prohibit lump-sum payments prior to retirement is that it ensures a more

Public pension plans are being considered to see if they have affirmative action plans.

secure retirement future for employees in that the stream of pension savings is not interrupted or destroyed. When a worker retires, there is money available to help meet needs. To provide employees with greater security for the future is the biggest argument in favor of the new pension bills.

One problem for employers under the proposed bills is information dissemination. In 1974, the Employee Retirement Income Security Act (ERISA) required employers to tell their employees about their benefit status. However, the Department of Labor has never established rules that ensure this information is passed on to employees. In a study conducted by the General Accounting Office, 82% of the workers questioned were in error about when they qualified for their retirement benefits. In addition, one-half of the summary sheets supplied to workers about their pension plans contained incorrect data [When, p. 1]. If this problem of mis-information on pensions has existed since 9174, the explanation of the new pension options to employees may never be accomplished unless some penalty is imposed.

In addition to disseminating correct information, employers will be responsible for taking care of the transfer of funds from their plan to another employer's plan when an employee changes jobs. The amount of red tape involved in accomplishing this goal is seen by employers as an unreasonable burden to assume in an area where there is already confusion.

Employers are not the only opponents of the pending legislation. There are pension experts who are opposed to the new pension bills and the requirements to transfer lump-sum payments to other pension plans. These individuals feel that employees may not contribute to pension plans if withdrawals cannot be made before retirement. The general feeling is that the overall employee savings rate will be reduced [Geisel, p. 37].

Future Trends

As a result of the recent advent of numerous pension bills in the Congress, the area of pension fund investment is being explored for new opportunities. If the portability features requiring employees to transfer their accrued pension benefits from one employer to another, rather than spending them, is enacted into law, a larger amount of pension funds will be available for investment than ever before.

One of the areas that is already being explored as an arena for investment of pension funds is investment firms which are minority owned. Public pension plans are being considered to see if they have affirmative action plans. These plans mean committing funds to minority owned investment firms. Although there are not many, they are growing in number. To get pension fund business, minority firms are teaming up with larger, more established money management firms. Pension plans which have invested funds in minority investment firms include the Florida state pension plan and the District of Columbia's Retirement Board. Once these firms gain experience, pension funds will be looking more closely at them as an avenue for investment of their increasing balances [Crossen, p. 27].

Over the past several years, pension coverage of employees has been decreasing because many employers have come to see pension plans as a cost rather than a benefit, or as a source of additional capital in times of financial stress.

Summary

Pension plans are a fringe benefit of employment. The new pension laws being proposed in Congress are aimed at protecting this employee benefit. Over the past several years, pension coverage of employees has been decreasing because many employers have come to see pension plans as a cost rather than a benefit, or as a source of additional capital in times of financial stress. In order to provide the employee with a more secure retirement future, the new laws seek to protect pension benefits, not only from dilution by employers, but also from dilution by employees themselves who change jobs periodically without providing for continued pension coverage. Requiring lump-sum pension payments to be transferred to the new employer will ensure the employee of a stable retirement fund to supplement social security when the employee is ready to retire.

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Bodnar, Janet, "Have Pension, Will Travel" Changing Times (October, 1987), p. 9.

Crossen, Cynthia, "Public Pension Funds Earmarking Assets for Minority-Owned Investment Firms," The Wall Street Journal (September 24, 1987).

Geisel, Jerry, "Bill Requires Firms to Accept Pension Rollovers," Business Insurance (June 15, 1987), pp. 1, 37.

Hodge, Marie, "Is Your Pension Safe from Your Company?" 50 Plus (May, 1987), pp. 50-51.

Perlman, Ellen, "Congress Looks at Portable Pension Issue," Pension World (June, 1987), pp. 10-11.

Tax Reform and Your Tax Strategy (Washington, D.C.: The Kiplinger Magazine, 1987).

A Bill To Amend the Internal Revenue Code of 1986 and Title I of the Employee Retirement Income Security Act of 1974, H.R. 2613, 100th Congress, 2nd sess., 1987.

"When Can You Retire?" The Wall Street Journal (September 29, 1987).

Literary Award Winners: Dahli Gray (center), chairman of the Literary Awards Committee, congratulates winners Linda Plunkett and Deborah Turner.

Opening Session: Rachel Query, ASWA president, and Elizabeth Lightfoot, 1989 JAM chairman, enjoy the opening session.

1989 JOINT ANNUAL MEETING AWSCPA-ASWA

BRIDGING YOUR FUTURE

AWSCPA Presidents: Mary Ann Correnti, president-elect, Nancy Tang, president, and Diana Scott, immediate past-president, exchange ideas for the coming year.

Above: AWSCPA Public Service Award: Trini Melcher, recipient of the 1989 Public Service Award, displays the plaque presented to her.
Right: 1990 JAM: A group from Washington, D.C., performs a song and dance routine to advertise Washington, D.C. as the 1990 JAM site.

Managing Your Own Assets

Max Messmer *is chairman and CEO of Robert Half International Inc. Its Robert Half and Accountemps divisions specialize in permanent and temporary placement of accounting, financial, banking and information systems personnel.*

By Max Messmer

As you go about reviewing other peoples' assets, your success will be largely determined by your ability to review and manage your own business assets - your current and future employees. In a profession where "your assets go home every night", the ability to attract, keep and motivate good people is essential to providing excellent service.

But, given the nature of the accounting profession, this takes special talent and flexibility.

The accounting profession, among other requirements, demands standardization, conformance to rules and following procedures to the letter. Strict adherence to these rules creates excellent accountants who build strong reputations.

On the other hand, the elements of good people management require a very different skills set. Good people are motivated to do their best through encouragement of risk-taking, creative ideas and bending of rules instead of hard and fast procedures. These concepts can send chills up a manager's spine when thought of in terms of accounting principles.

It takes a very special manager to be adept at both the numbers and the people side of the accounting profession.

But this kind of adeptness is required if the accounting profession is to grow and prosper. Right now, accounting is experiencing a shortage of qualified young people entering the profession. As the "baby bust" years come into their full force, that situation will intensify.

All of American business is grappling with the diminishing number of qualified college graduates. Some of the strongest competition going on in our country is not for a fair share of business, but for an adequate number of high caliber employees who can sell and service that business.

On one hand, the profession is competing against many other professions in attracting good people. On the other hand, each firm or corporate function is competing against others in the profession to maintain a competitive people advantage.

Both efforts are equally important for long-term success. As you work on the most immediate problem at hand - building the assets of your own firm - you can do so in a manner that will strengthen your profession, as well.

Here are some suggestions for recruiting and motivating solid people assets. They are based on my conversations with a number of our most successful Robert Half clients, who are taking innovative approaches to assuring the long-term vitality of their firms, departments and profession.

• **Separate the Practice from the People.** Help everyone around you understand the dichotomy between the negative concept of "creative accounting" and the positive concept of a "creative accounting environment". The first is unacceptable. The second is essential. Those who can split their personas to demand solid, unwavering accounting principles in a fluid, creative people environment will become the heroes of the 1990s. Make current and prospective employees understand that you believe this is a challenge worthy of taking on, and that you will champion and support it fully.

• **Talk about the value of the Practice.** When interviewing candidates, concentrate on the value they will help you bring to your clients or your company. Recent college graduates have minimal business experience. Help them understand the dynamics of business and the important role the accounting profession plays in helping businesses be more successful. Give examples of client problems you help solve and of client objectives you help turn into reality. Get them excited about entering a mainstream of American Business which is a crucial artery to its success, rather than a narrowly defined job category.

• **Do People Things That Would Never Pass an Audit.** The best people entering our workforce today not only require a "people world" - they demand it. They demand creative license, creative interaction, encouragement to be their best, and positive recognition of their entrepreneurial spirit. They will use this criteria in choosing both a profession and an employer.

To attract and retain these employees, you must give them the freedom to create a "people world" that happens to be in the business of managing numbers. You must allow them to make a work environment that is based on creative ideas rather than rules and regulations.

• **Think of Yourself as a Job Applicant.** Sometimes the desires, aspirations and demands of a young person entering the field sound naive when filtered through the jadedness that often is a byproduct of long years of experience. Adjust your own thinking to see new ideas through the eyes of a young person entering the profession.

What did you want in career satisfaction that hasn't come to pass? Let each crop of new thinkers who are unfettered by experience give renewed vigor to your own aspirations and drive the spirit of your organization.

The extent to which the accounting profession of tomorrow will be considered an exciting place to be is dependent on how the profession manages its people assets today. If people assets are well managed, then high quality management of client assets will follow naturally.

SFAS 87

What Effect So Far?

By Mary Ann Merryman

SFAS 87 has made significant changes in employer's accounting for pension plans. Most of the changes are now required disclosure, however the requirement to record an additional minimum pension liability was delayed to 1988. This paper summarizes the changes imposed by SFAS 87 and discusses the effect of these changes on companies' financial statements in the year of adoption, as well as the future effect when the remainder of the statement becomes effective.

In December 1985, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards (SFAS) No. 87 "Employers' Accounting for Pensions". It superseded Accounting Principles Board (APB) Opinion No. 8 "Accounting for the Cost of Pension Plans" and SFAS No. 36 "Disclosure of Pension Information". This statement was the result of a ten year study of pension accounting by the FASB. From 1980 to the end of 1985, the FASB issued two discussion memorandums, a preliminary views document, two exposure drafts and witnessed 151 presentations over thirteen days of public hearings prior to issuing the final statement. The length of time the project required indicates the importance of and the controversy surrounding the topic. There was controversy even within the Board itself, as indicated by the four to three vote on the final statement. With the exception of the minimum liability disclosure, SFAS 87 was effective for fiscal years beginning after December 15, 1986. The FASB encouraged early adoption and numerous companies elected to do so.

What Were the Changes?

The FASB's goal in developing SFAS 87 was greater consistency in pension accounting. The objectives of the statement, as described in paragraph 6 are:

a. to provide a measure of net periodic pension cost that is more representationally faithful than those used in past practice because it reflects the terms of the underlying plan and because it better approximates the recognition of the cost of an employee's pension over that employee's service period;

b. to provide a measure of net periodic pension cost that is more understandable and comparable and is, therefore, more useful than those in past practice;

c. to provide disclosures that will allow users to understand better the extent and effect of an employer's undertaking to provide employee pensions and related financial arrangements; and

d. to improve reporting of financial position.

With these objectives, the FASB made changes in four areas:

#1) SFAS 87 requires a standardized method of measuring annual pension expense. As prescribed in paragraphs 20 through 34 and in paragraph 77, net pension expense will now be derived from six components:

1. Service cost (increases pension expense) - This component is the actuarial present value of benefits attributed by the pension benefit formula to employee service for the current year, measured by using the projected unit credit method with salary progression, if applicable, and discounted to present value using a current discount rate. APB 8 permitted a choice among several actuarial methods and allowed the use of very conservative discount rates.

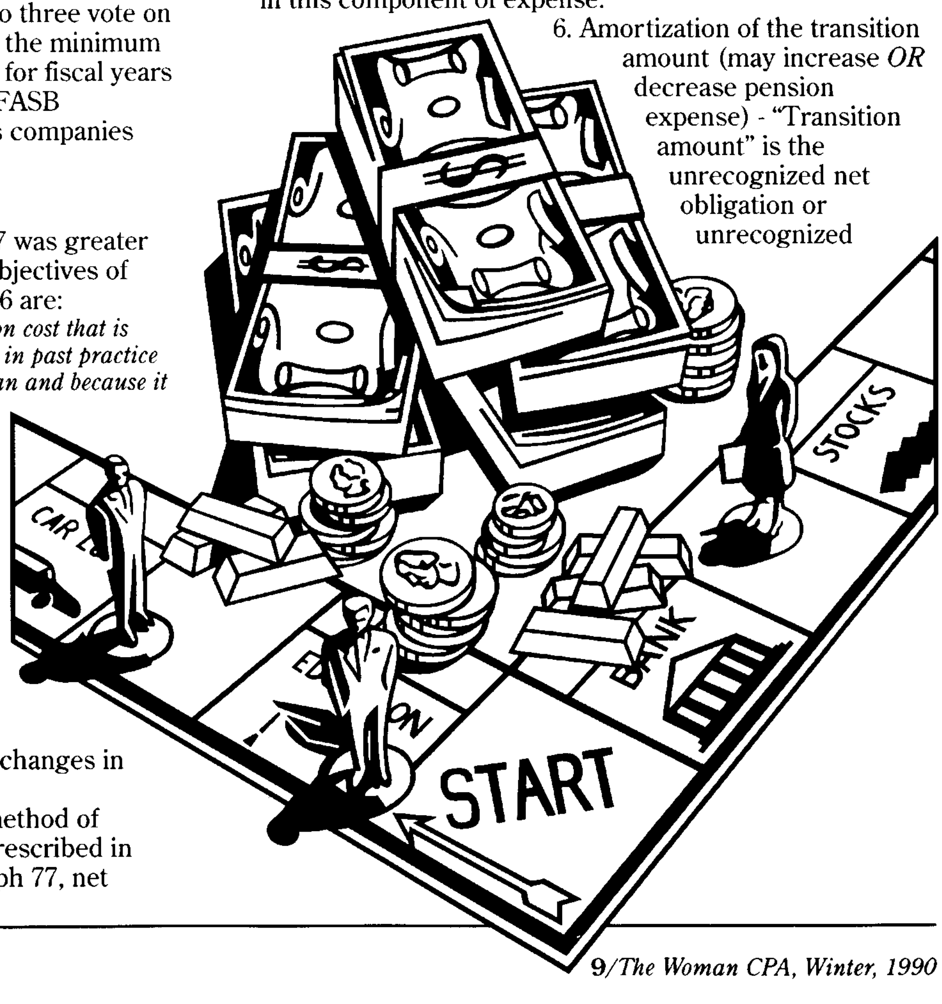
2. Interest cost (increases pension expense) - This component is the increase in the projected benefit obligation due to the passage of time, using a settlement-basis discount rate.

3. Actual return on plan assets (decreases pension expense) - This component is the difference between the fair value of plan assets at the beginning of the period and the fair value at the end of the period, adjusted for contributions and payments of benefits during the period. (Adjustment to expected return is included in the gains or losses component).

4. Amortization of unrecognized prior service cost (generally increases pension expense) - This is a new method of amortization required by the FASB.

5. Amortization of gains and losses (may increase OR decrease pension expense) - This component represents the changes in the amount of either the projected benefit obligation or the plan assets resulting from experience different than assumed and from changes in assumptions. Amortization is now calculated using the "corridor approach" which helps to eliminate some of the volatility in this component of expense.

6. Amortization of the transition amount (may increase *OR* decrease pension expense) - "Transition amount" is the unrecognized net obligation or unrecognized



net asset existing at the date of initial application of SFAS 87. This amount represents a "fresh start" in that it includes the unamortized amounts for any plan amendments or actuarial gains and losses that arose before initial application of SFAS 87. This amortization provides some relief in pension cost.

Change #2) Under SFAS 87, the cost of retroactive benefits are required to be recognized over the remaining service period of active employees. Recognition was previously allowed over a period of up to forty years.

Change #3) A new "minimum liability" is required to be recorded when the accumulated benefit obligation under the pension plan exceeds the fair value of plan assets. No such disclosure has been required previously. This new liability need not be reflected on the balance sheet until fiscal years beginning after December 15, 1988.

Change #4) Significant additional disclosures are required. SFAS No. 88 "Employers' Accounting for Settlements and Curtailments of Defined Benefit Pensions Plans and for Termination Benefits" was also issued at the same time as SFAS 87, changing significantly the accounting for pension plan terminations, settlements and curtailments.

What has Been the Effect of These Changes?

The Wall Street Journal [Crossen, 1988] has stated, "It (SFAS 87) has to be one of the most feared and misunderstood accounting rules of all time ... It may affect the way more than a trillion dollars is invested - and the lives of millions of people." Given the controversy mentioned above and the fact that many companies opposed the issuance of the statement, what has been the effect of the changes in calculating pension expense?

In order to evaluate the effect of the changes required by SFAS 87 on companies' financial statements, the annual reports of 100 publicly traded companies with defined benefit plans were examined for the year in which they made the transition from APB 8 to SFAS 87. Sixty-nine of the companies were included in Forbes 500 largest companies in the United States. The other 31 were smaller and not as well known. The objective was to determine the impact of the change on pension expense and/or net income (loss). Of the 100 companies examined, 72 elected early adoption of SFAS 87. Twenty-eight companies chose to implement the statement when required. Seventy-one of the 72 early adoptees were able to reduce pension expense under the new rules, or the change was not material.

Of the 100 companies, 28 were able to report pension income under the new statement. (See Exhibit A) This was possible primarily due to the offset of the return on pension plan assets when calculating net pension expense.

Sixty-five of the companies reported a decrease in pension expense in comparison to what expense would have been under APB 8. (See Exhibit B) Only three companies stated that pension expense had increased. (However, one of the companies with increased expense reported an increase of 50.4%)

What was the magnitude of the decrease in pension expense for the 65 companies? Some companies chose to disclose the impact as a decrease in pension expense. Others chose to show the increase in net income (decrease in net loss) as a result of decreased pension expense. Exhibit C shows the breakdown of those annual reports which disclosed the change in pension expense and those which disclosed the change in net income (loss). Thirteen companies reported a decrease in pension expense of over 100%. One company had an increase in net income of 121% due to implementing SFAS 87.

What About the New Minimum Liability?

Probably the most controversy surrounding SFAS 87 concerned the recording of an additional pension liability for underfunded plans. Previously, the only pension asset or liability on the balance sheet was prepaid or accrued pension cost originating if the company chose to fund, or pay into the plan, an amount greater than or less than pension expense recognized on the income statement. SFAS 87 will require some companies to record an additional liability on their balance sheets in

**Exhibit A
Pension Expense vs.
Pension Income**

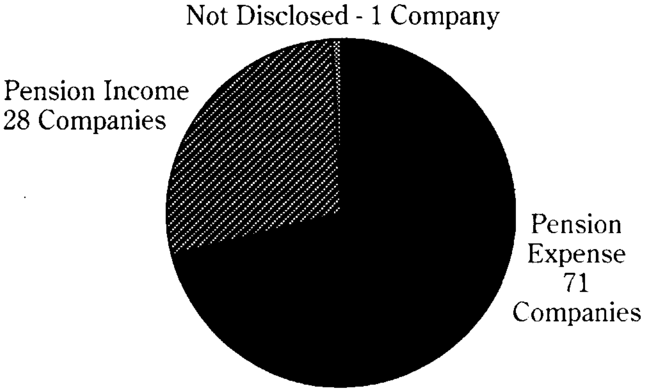
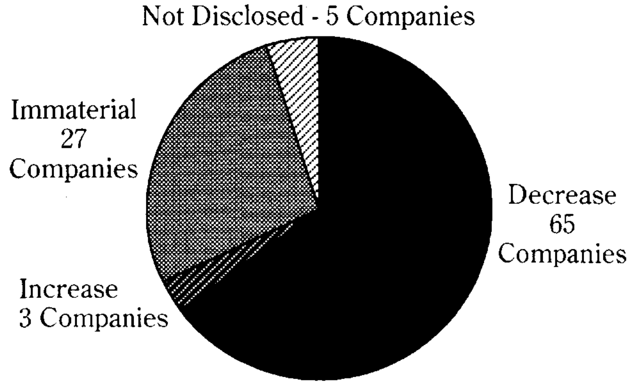


**Exhibit B
SFAS 87 Effect on
Pension Expense**



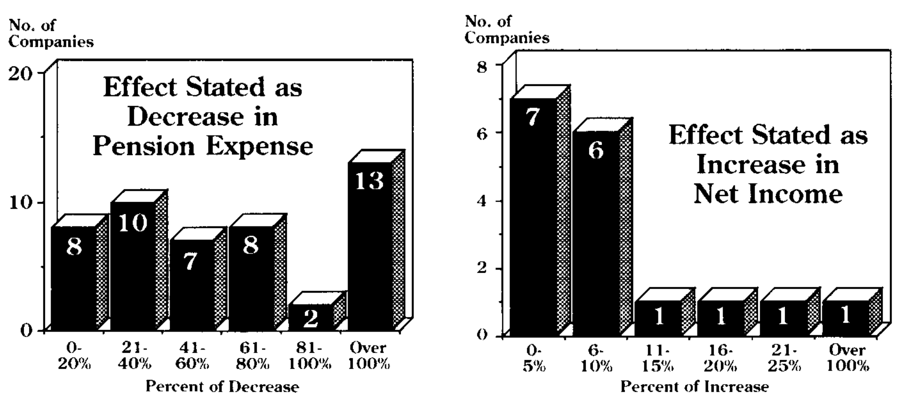
fiscal years beginning after December 15, 1988. Following the principle of conservatism, the FASB will not permit a company with plan assets in excess of obligations to record a pension asset.

Opponents of this liability argue that the assets and obligations of the pension plan are not general assets and liabilities of the employer, but are assets and liabilities of the plan itself and should appear only on the financial statements of the pension plan. This ongoing controversy as to "Whose money is it, anyway?" still continues despite SFAS 87.

The new minimum liability is the amount of any unfunded accumulated benefits, which is the difference between the accumulated benefit obligation and the fair value of the plan assets. The accumulated benefit obligation differs from the projected benefit obligation in that it is the actuarial present value of benefits earned to date without regard to the effects of future pay increases. In other words, it is a more conservative representation of the pension plan's future obligation, but would be an indication of the liability if the plan were terminated. The minimum liability is compared to the previously recorded prepaid or accrued pension cost and an additional liability is recorded, if necessary, to show a total pension liability equal to the minimum liability. If an additional liability is to be credited in situations where there are unfunded obligations, what is the offsetting debit? The FASB has stipulated that the debit will be to one of two accounts. The most common will be to an intangible asset that will not be amortized, but the balance of which will be adjusted as the additional liability is adjusted to the funding status at each fiscal year end. The argument in favor of recording an asset is that the unfunded benefits usually arise from plan amendments that are expected to benefit future periods. In those situations where the new liability exceeds the existing unrecognized prior service cost (from plan amendments), the excess is considered to have no future economic benefit and would be debited to a contra stockholders' equity account rather than to an intangible asset. Of the 100 companies examined in this study, 32 had unfunded accumulated obligations on the date of adopting SFAS 87. (See Exhibit D) Of the 32, 19 would have been required to record an additional pension liability in the year of transition if the FASB had not delayed this requirement. The amount of the additional liability would have ranged from $1 million (an immaterial percentage of the company's total assets) to $3.3 billion (5% of the company's total assets). Although the majority of the companies chose early adoption of the other SFAS 87 changes, only one company chose to record their additional liability early, in the transition year.

SFAS 87 does not permit companies with more than one pension plan to combine plans in determining the unfunded accumulated obligation unless the assets of one plan can be used to settle obligations in another. If allowed to combine plans, sixteen of the above nineteen companies, with additional liabilities, would not have calculated such a liability.

Exhibit C
Impact of Decrease in Pension Expense



The FASB initially proposed recording the difference between the projected benefit obligation and the fair value of plan assets and disclosing the full unfunded liability under the plan. However, as a result of responses to Preliminary Views and the Exposure Draft, concessions were made. "The Board believes that it would be conceptually appropriate and preferable to recognize a net pension liability ... measured as the difference between the projected benefit obligation and plan assets .... However, it concluded that [that approach] would be too great a change from past practice to be adopted at the present time." [SFAS 87, paragraph 107].

If the FASB, for purposes of the additional liability, and followed through with its proposal and required an additional liability based on the unfunded projected obligation, 42 of the 100 companies selected, rather than 32, would have been underfunded, and of the 42, 37 (versus 19 using the accumulated benefit obligation) would have calculated an additional pension liability (See Exhibit E).

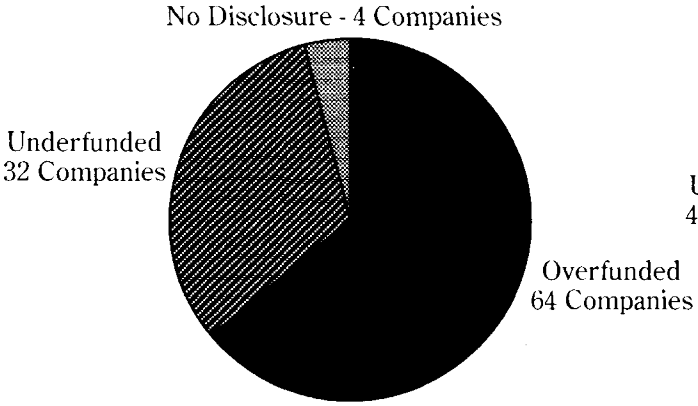
Has Disclosure Been Improved?

One objective of the FASB was to provide more meaningful and understandable footnote disclosure. The statement lists, in paragraph 54, the specific items to be included. Of the 100 companies examined, all but three appeared to have adequate disclosure. There were differences in how the information was presented but there was some degree of uniformity among the 97 detailed footnotes. The footnotes were still quite complex, however, and only a user with a reasonable degree of pension knowledge would actually understand what was presented. Given the complexities of pension plans, most likely this will always be true.

Conclusion

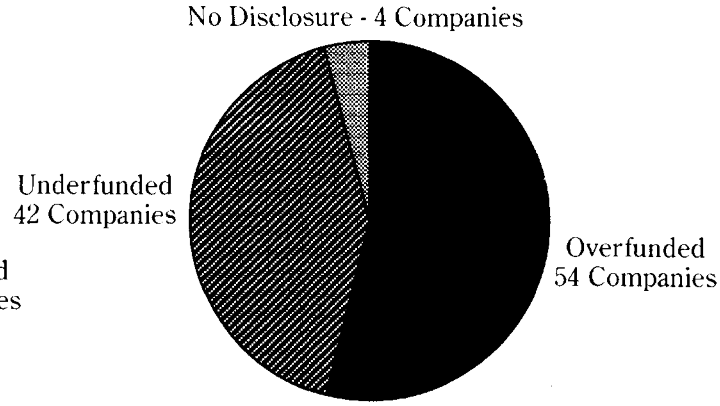
The Financial Accounting Standards Board set out, in SFAS 87, to (1) improve the measurement of annual pension cost on the income statement by making it more representationally faithful, more understandable and more comparable; (2) provide better pension disclosure; and (3) improve the reporting of

Exhibit D
Funding Status Using Accumulated Benefit Obligation*



* Two companies disclosed only the projected benefit obligation and not the accumulated benefit obligation. Funding status for these companies is thus based on the projected benefit obligation

Exhibit E
Funding Status Using Projected Benefit Obligation



financial position. Based on the research conducted, it appears that goals 1 and 2 have been achieved. The standardization of determining pension expense (income) and of footnote disclosure will improve financial reporting but not without a significant impact. Financial statement users should be aware of this impact and of the effect SFAS 87 will have on net income during the period of transition, especially in comparison to fiscal years prior to adoption. Whether or not an improvement in the reporting of financial position will result from SFAS 87 has yet to be seen. If the additional liability were required at the same time as the remainder of the statement, some companies would have recorded significant new liabilities and assets/contra stockholders' equity accounts on their books. Whether or not this would have improved the balance sheet depends on how one views pension assets and obligations.

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Measuring Productivity:

A Look at What the Coal Mining Industry Does

By Joseph J. Urbanowicz, Jr. and Thomas J. Phillips, Jr.

Introduction

There may be no better example of the need for productivity measurement techniques than the coal mining industry. Soaring costs have closed numerous mines and caused some companies to discontinue operations altogether. Increased productivity can be the key to allowing companies to survive in a worldwide marketplace where cost is the most important factor. Successful firms have found that improving productivity requires establishing measurements with baseline values for comparison of future productivity levels.

Engineers have developed many of the productivity measurements used in coal mining operations out of a genuine need for economic efficiency. This has been the case in many industries. This paper examines some of the productivity measurements that are required for a successful surface coal mining operation. These types of measurements exemplify the need for accountants to become more creative in any industrial setting. Most of them call more for imagination than for familiarity with the technical operations.

Engineers have developed many of the productivity measurements used in coal mining operations out of a genuine need for economic efficiency. This has been the case in many industries.

Productivity

"Productivity is the measure of how effectively all resources are used, whether they be labor, capital, raw materials, or equipment [Owens, 1985, p. 48]." Effective, efficient use of resources in the coal mining industry is synonymous with the survival of the company. Constant productivity measurements must be made on equipment and labor if operations are to be improved and costs lowered. Productivity data are essential in establishing realistic planning and forecasting criteria as well. Efficient use of resources in any industrial setting requires productivity data.

Dividing a surface coal mining operation into units is first necessary. Productivity measurements then help determine productivity levels of unit operations as well as overall performance of the collective mine. This segmenting process is normally a good first step in any organization. Recent technological changes allow enhanced productivity measurement using electronic monitoring and computers. Examples of technological changes in the coal mining industry are examined in a later section.

Recent technological changes allow enhanced productivity measurement using electronic monitoring and computers. Examples of technological changes in the coal mining industry are examined in a later section.

Measurements for Unit Operations

Productivity in individual unit operations determines the overall productivity of a surface coal mine. Four unit operations comprise a surface coal mine: drilling, blasting, overburden removal, and coal loading and hauling. Knowing the basic operational process in any organizational unit is essential for developing productivity measurements. Notice in the following sections how the process objectives are refined into measurements in each of the unit operations.

Drilling

The majority of surface coal mines in the United States have overburden material, rock that directly overlies the coal seam. This must first be fractured into a loadable size. The first unit operation in the fracturing process is production drilling. Drill holes of varying diameter are bored into the overburden from a predetermined elevation to the top of the coal seam. Normally these holes are drilled in a carefully designed pattern to maximize rock fracture and to minimize drilling time and the amount of explosives used.

During every shift, the drill operator routinely records the depth of each hole and the total depth of drilling on daily drill reports. "The daily drill report should also include date, shift, operator and helpers' names, identity of the drill rig, location, material encountered, actual rotating time, delays and their cause, potential mechanical problems in evidence, and wear condition of the bit after each hole. This information is valuable for future performance analysis and calculating overall drill efficiency." [Williamson, 1972, p. 308]

The measure of drilling productivity is penetration rate, the distance of drill bit advances through overburden per unit of time. For example, if the total footage drilled for a particular eight-hour shift were 846 feet, the penetration rate would be 105.8 feet per scheduled hour (846 feet divided by 8 hours). Drilling productivity also can be expressed in terms of operating hours and actual rotating hours. In the example above, if the drill operated for six of eight scheduled hours (two nonproductive hours were allocated to operator travel, lunch break, breakdowns, fueling, etc.), the penetration rate would be 141.0 feet per operating hour (846 feet divided by 6 hours). If the drill were actually rotating five of the six operating hours (one hour was allocated to drill travel and setup time between holes), the penetration rate would be 169.2 feet per rotating hour (846 feet divided by 5 hours).[1] Drilling productivity is measured each shift for every drill in operation. This information is then compiled on a daily, monthly, and annual basis.

Accurate measurement of drilling productivity is essential in determining drill cost per foot. Once operating and ownership costs have been determined on an hourly basis, the cost per foot for each drill can be calculated by dividing cost per hour by the penetration rate (\$/hr divided by ft/hr = \$/ft).

The amount of time required to prime, load, and detonate the drilling pattern is an important consideration in the overall performance of blasting operations.

Blasting

Blasting is the second unit operation in the fracturing process. After drilling, holes are loaded with an explosive mixture. Bulk trucks carrying explosives drive directly up to the drill hole and deposit the mixture into the hole.

The amount of time required to prime, load, and detonate the drilling pattern is an important consideration in the overall performance of blasting operations. Productivity of the blasting operation, however, is measured primarily in terms of the quantity of explosives required to fracture a unit volume of overburden material. The powder factor is a measure of the number of pounds of blasting agent needed to fracture each bank cubic yard of overburden material.

Two measures are required. The blasting foreman calculates total quantity of bulk explosive placed into the holes. Next, total bank cubic yards of overburden fractured must be calculated by using hole spacing and depth data available from drill reports relating to the particular drilling pattern. The powder factor is then calculated by dividing total pounds of bulk explosive by total bank cubic yards of overburden blasted. Another measure of blasting productivity is the blasting ratio. This is defined as "total bank cubic yards of overburden divided by the total number of pounds of explosives, including caps, primers, boosters, and the blasting agent." [Pfleider, 1973, p. 142]

Overburden Removal

Three common methods of overburden removal are by dozer, truck/

[1] In one subsequent discussion of unit operations, we use the scheduled hourly basis for productivity measurement.

loader, and dragline. Choice of equipment selection depends on capital availability, strip ratio (bank cubic yards of overburden per ton of recoverable coal), number of coal seams to recover, geology, and quantity of recoverable coal that must be uncovered each operating day.

In dozer stripping operations, the blasted overburden is pushed into an adjacent pit or spoil area. Two variables that have the greatest impact on dozer productivity are push distance and working grade: how far the dozer must push each blade of material, and the positive or negative effect of the working grade upon the speed of moving material.

Dozer productivity is measured most accurately by volumetric field surveys and time studies. The first step requires a survey of the existing topography of the area to be excavated. A stop watch is started, and the dozer begins pushing the overburden into the adjacent spoil area. Accurate records must be kept on average push distance, average working grade, downtime, and operating time. The dozer should work for several days in order to get a representative result.

Two variables that have the greatest impact on dozer productivity are push distance and working grade: how far the dozer must push each blade of material, and the positive or negative effect of the working grade upon the speed of moving material.

When work is completed, total time is recorded, and a second field survey defines the shape of the excavation. The difference between the pre-mining and post-mining surveys is volumetrically evaluated to calculate the bank cubic yards of overburden pushed. Dividing the total bank cubic yards by the scheduled operating hours yields the dozer productivity for the average push distance and working grade under examination.

Similar studies are required for different excavating situations (i.e., shorter or longer push distances, and steeper and flatter working grades). The same productivity measuring technique should be carried out for all dozers with different horsepower ratings and blade specifications. Measuring different dozer productivities in varying situations yields a range of productivity information that can be expressed in spread sheet format.

Productivity data are matched with dozer coast per hour information to yield dozer cost per bank cubic yard of overburden ($/hr divided by BCY/hr = $/BCY). Resulting information can again be placed into a spread sheet format to illustrate varying cost per bank cubic yard for different push distances and working grades.

Another method of overburden removal is with truck and loader. The loader scoops up the loose overburden material and dumps it into a truck. The truck hauls the material to a dumping location and returns for another load.

There are several methods available to measure the productivity of the truck/loader team. The first method involves accurate recordkeeping of truck load counts. Each truck driver fills out a shift report with the date, shift, driver name, truck identification number, loader number, loading location, dump location, number of loads hauled, downtime, and operating time. The loader operator also fills out a shift report with the date, shift, operator name, loader identification, identity of trucks loaded, number of loads hauled by each truck, loading location, downtime, and operating time. The pit foreman collects the truck and loader shift reports and compiles the information for each team. The truck load information from both sources acts as a good cross-check (i.e., number of truck loads added up from truck reports must equal number of trucks loaded from loader report).

The truck's heaped capacity in loose cubic yards must then be known in order to determine the total number of loose cubic yards moved by each truck/loader team. Truck capacity usually is available from the manufacturer. Capacity can also be calculated from several days of good load count information in conjunction with a before-and-after volumetric field survey of the dump site. The latter is more likely to be accurate as there may be discrepancy in manufacturer specifications that will distort productivity measurement.

Once the heaped capacity of the hauling truck is known, the total loose cubic yards and material moved by the team can be calculated by multiplying the total number of loads by the heaped capacity in loose cubic yards per load (# loads x LCY/ load = total LCY). (Obviously, this calculation works only if all trucks in each team are the same type and have the same truck bed.) The productivity of the truck/loader team can now be measured by dividing the team's total loose cubic yards by the scheduled loader hours for a given shift (total LCY by scheduled loader hours).

In order to measure the productivity of the truck/loader team on a bank cubic yard basis, the swell factor of the material must be known. The swell factor of a material is the percentage of increase in volume that occurs when a material is taken out of its natural state (e.g., a typical swell factor for shot sandstone is about 30%).

A second method to measure the productivity of the truck/loader team is similar to the volumetric survey and time study method discussed for the dozer operation. The pre-mining and post-mining typography of the mining area is surveyed. The volumetrics are evaluated and the bank cubic yard excavated are calculated for the particular time period. Total bank cubic yards are then divided by total scheduled loader hours in order to determine the truck/loader team productivity.

Each measurement method for the truck/loader team has advantages and disadvantages. The truck load count method is relatively inexpensive, but good daily recordkeeping is essential. It has the advantage of allowing productivity to be measured at the end of every shift for each team. Low productivity may be able to be improved by the next shift with minor changes in operating procedures. One disadvantage is that truck load counting can skew the results if the trucks are not loaded to full capacity or if the truck load count is miscalculated. The volumetric survey method is more accurate but also more costly. It requires surveying services besides extra in-office computation time. Most large operations, however, have a survey crew on staff and routinely do volumetric surveys and computations for monthly reporting purposes.

The largest and most efficient overburden moving machine is the dragline. Large surface mining operators that employ medium-size to large draglines can take advantage of the economy-of-scale concept. Productivity levels, however, must remain high throughout the twenty to twenty-five year life expectancy of the dragline in order to justify its $25 million or more purchase cost. Seemingly small savings of time and effort in dragline operation can have significant effect on profit [Furniss, 1986]. The ability to measure and continually enhance the performance of a dragline will help insure competitive productivity levels throughout the life of the machine.

The first method of productivity measurement is based on dragline swings. Draglines constantly pick up, swing, and dump material, then swing back to the starting position. Normally each swing counts toward a bucket of overburden removed from the set and placed into the old pit. Time studies are often carried out to determine the number of swings a dragline can be expected to make in one hour, and occasionally draglines have monitoring systems

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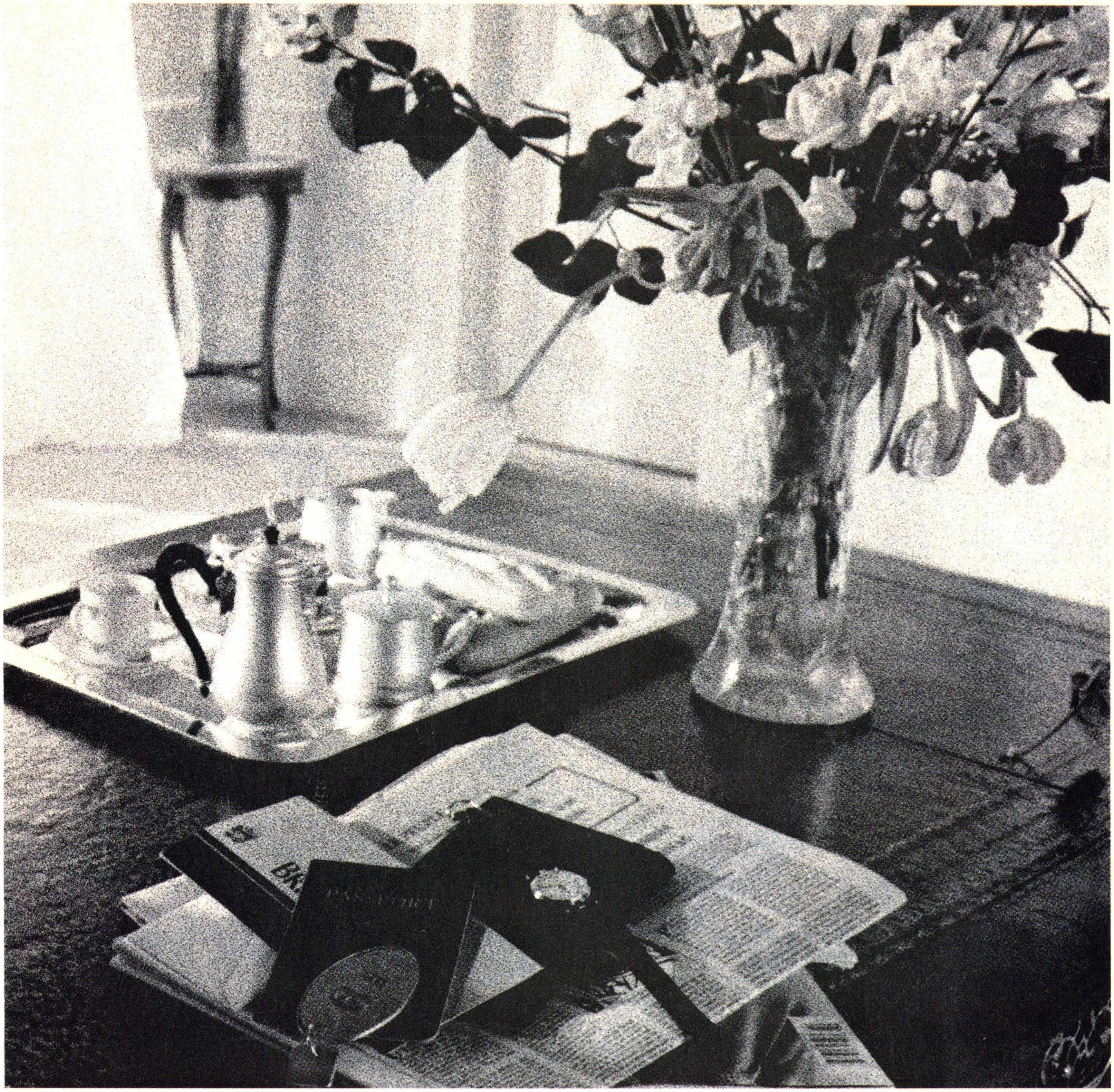

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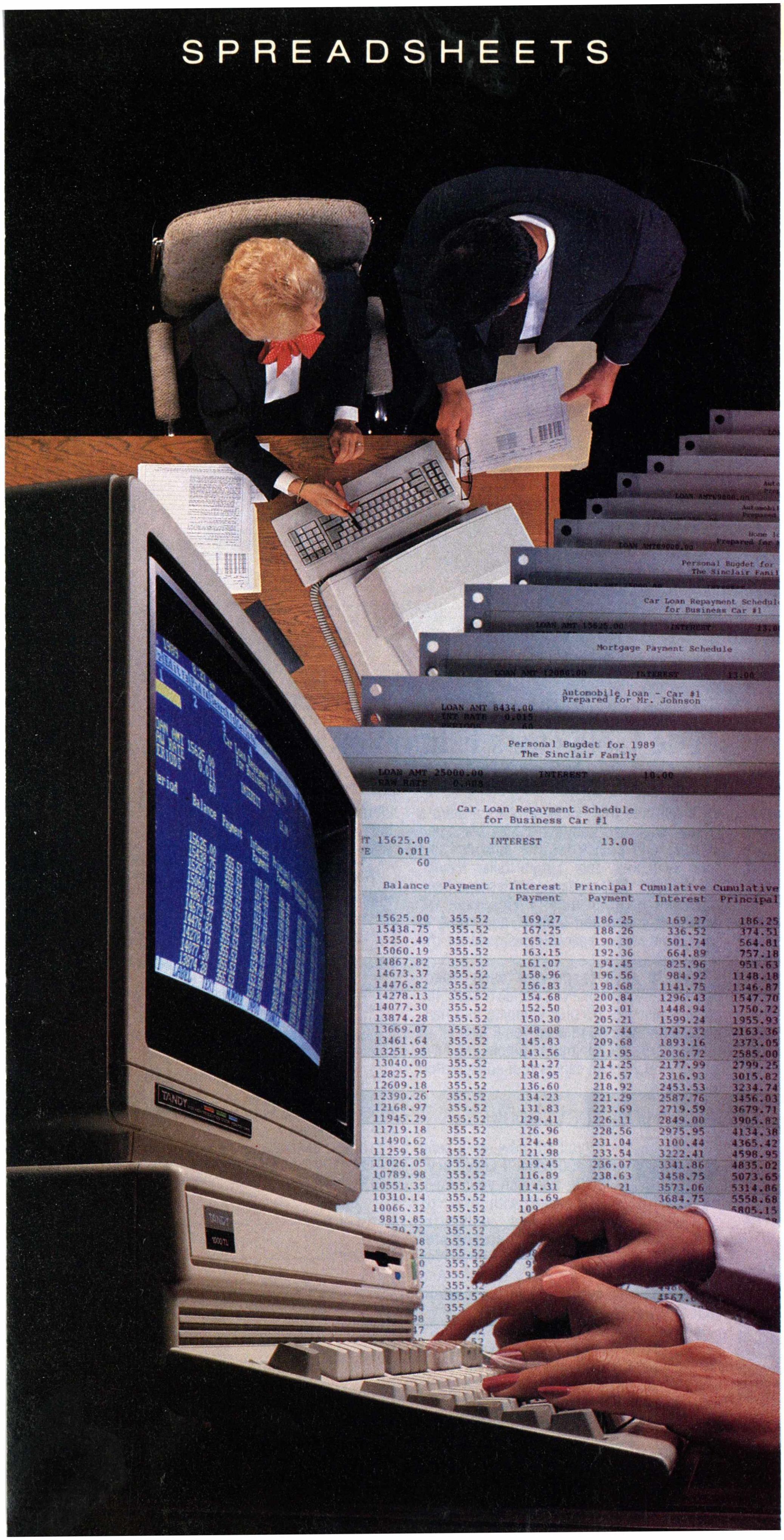

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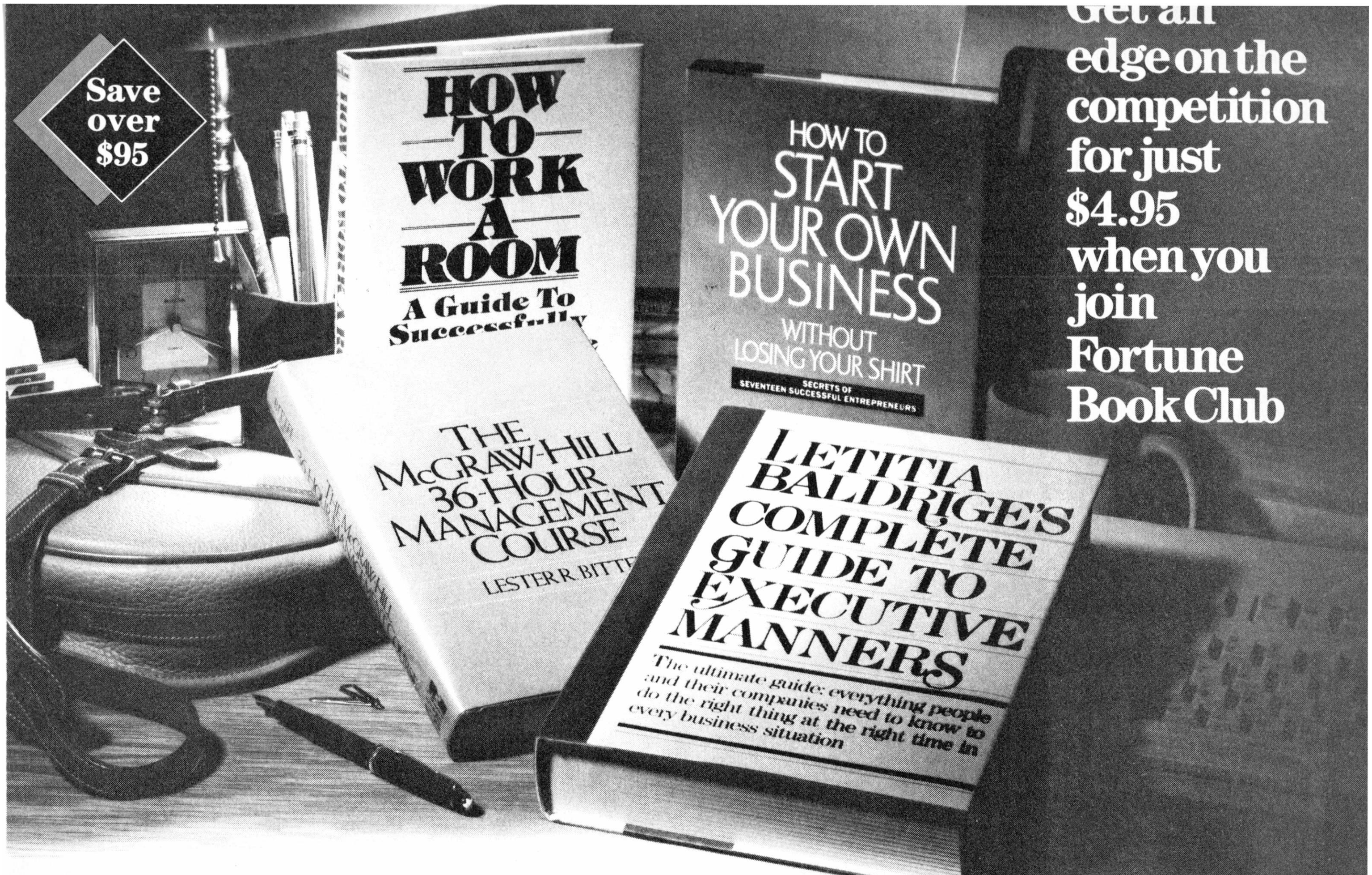

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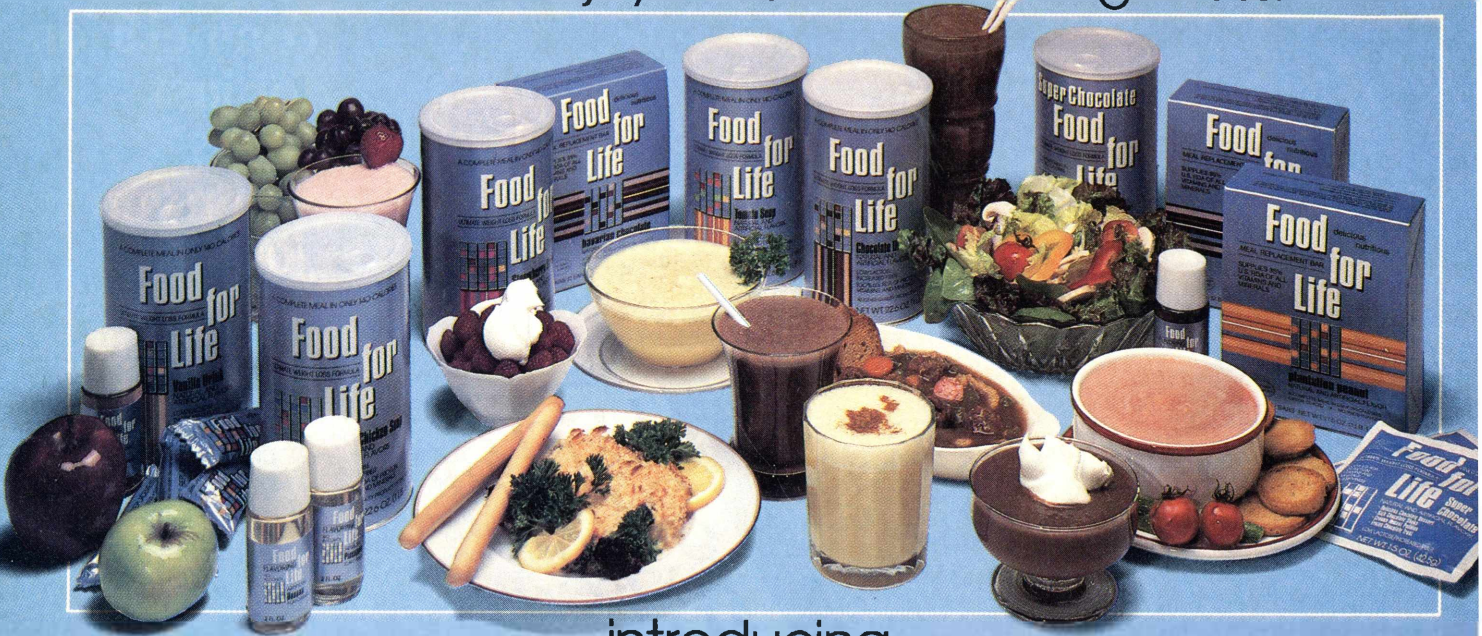

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that calculate the average number of swings per hour at the end of each shift. The number of swings per hour times the rated bucket capacity in bank cubic yards for a particular material will give the expected bank cubic yards per hour.

The swing count method of productivity measurement can be accurate for normal digging situations only. The dragline often has to rehandle material several times for bench preparation and awkward digging situations. Rehandling material is counter productive. Rehandled yardage must be isolated and deleted from bank cubic yard per hour calculations. The swing count method otherwise can overstate dragline productivity by including nonproductive swings with productive swings.

A better method to measure the productivity of the dragline is identical to the volumetric survey and time study method discussed for the truck/loader operation. The premining and post-mining topography for the mining area is surveyed. Rehandled yardage must be isolated

Coal loading is a secondary process to overburden removal.

so it is not included as productive bank yardage. The volumetrics are evaluated and the bank yardage and rehandled yardage excavated are calculated for the time period. The total bank cubic yards are then divided by the total scheduled hours in order to determine the dragline productivity.

A bank index occasionally is calculated to evaluate dragline productivity by machines of different bucket size. The bank index is the number of bank cubic yards an excavator can move in 365 24-hour days per yard of bucket size.

Coal Loading and Hauling

The final unit operation is the coal loading and hauling operation. Coal loading is a secondary process to overburden removal. The overburden removal rate and stripping ratio actually determine how much coal will be uncovered at any time. The daily quantity of coal uncovered usually equals the daily quantity

Once the primary objectives of each unit are recognized, these objectives can be stated in quantitative measurements.

delivered to the customer, and the entire operation is designed to supply enough coal annually to satisfy the long- and short-term contracts.

For example, a mien that has sales contracts for 3 million tons of coal per year must uncover approximately 60,000 tons of coal per week (3,000,000 tons divided by 50 weeks per year). If the coal is loaded five days per week, two shifts per day, the mine must load 6,000 tons of coal each scheduled loading shift (60,000 tons per week divided by [5 days per week x 2 shifts per day]).

The productivity of the loading operation normally is measured in terms of tons loaded per shift. The tonnage loaded in any given shift occasionally is determined by weighing the coal trucks before they reach their final destination (truck hopper, coal river dock, stockpile, etc.). A better method involves weighing the coal after it is crushed and fed onto a conveyor belt. This method is practical only if the mine has a preparation plant/rail loadout, or conveys coal directly to a power generating station.

Measurements for Overall Operations

Measuring productivity in the unit operations above requires only a basic knowledge of each process. Once the primary objectives of each unit are recognized, these objectives can be stated in quantitative measurements. These measurements are developed the same way in any industry whether they be average miles per hour or cost per mile in transporting, cost per hour or cost per square foot in developing construction bids, unit volume per hour or cost per unit volume in casting metals, painted strips per hour or cost per painted foot for a robot in an automobile plant, or any of thousands of other possible measurements in various operations.

Overall productivity measurements for the entire operation should also be developed. However, these measurements are often more limited and they are not as useful in pinpointing problems. All inclusive productivity measurements are helpful in comparing one period with another or one plant with another.

In the coal mining industry, overall mine productivity is often measured in tons produced per man shift. This method takes into account not only the tons of coal produced per shift, but the number of employees as well. Normally all employees at the mine, hourly as well as salaried, are included.

Overall mine productivity also can be measured in bank cubic yards for an entire fleet of overburden removal units. This is easily accomplished by summing up the total bank cubic yards for each major earth mover and dividing by the summed up scheduled operating hours for each major earth mover. The resulting productivity measure is in terms of total bank cubic yards per scheduled operating hour for the entire stripping fleet.

Electronic Monitoring and Computers

Many coal operations are turning to remote monitoring systems to measure productivity. Monitors are gradually becoming standard equipment for draglines and some of the larger stripping shovels. "Many mining companies are now looking at computerized monitoring and control systems as a route to better effi-

Computerized monitors can provide feedback to the machine operator as well as speed up the productivity measurement.

ciency. Among the benefits of such systems are faster, more accurate data gathering for production and maintenance purposes [Furniss, 1986, p. 41]."

Computerized monitors can provide feedback to the machine operator as well as speed up the productivity measurement. Some monitors can display the latest cycle time and the number of complete cycles since the start of the shift. This valuable information allows the operator to monitor his own techniques and develop a consistent and efficient rhythm. [Furniss,1986]

The real drawback in the onboard computer and monitoring system is initial cost. Some companies market a computerized dragline monitoring system that is priced in the $500,000 range. As these systems still have some operating defects, many companies are wary of investing so much money when they can continue measuring productivity with traditional methods that provide accurate information.

Of all the technology developed over recent years, nothing has greater significance for coal mining productivity than the microcomputer. Microcomputers do not measure productivity directly, but they greatly improve data analysis and decision-making at the mine level. Correctly programmed computers can measure trends in production statistics and flag troubled activities for any desired time frame [Britton, 1985, 1986].

Overall productivity is the key to survival in any industry.

Similar technology is available for use in most industries. Many pieces of equipment and most robotic devices have monitoring systems. Concurrently, software for microcomputers can be developed that will track productivity or alert operators when productivity is dropping.

EXHIBIT 1
SUMMARY OF PRODUCTIVITY MEASUREMENTS FOR SURFACE COAL MINING — UNIT MEASURES

1. Production Drilling
   A. Feet per Operating Hour, or Feet per Rotating Hour (Penetration Rate)
   B. Cost per Hour
   C. Cost per Foot (B÷A)
2. Blasting
   A. Bank Cubic Yards of Overburden Material per Pound of Explosive
   B. Bank Cubic Yards of Overburden Material ÷ Pounds of Explosive (Blasting Ratio)
3. Overburden Removal
   A. Bulldozer
      1. Bank Cubic Yards per Hour ÷ Pushing Distance and Working Grade
      2. Cost per Hour ÷ Push Distance and Working Grade
      3. Cost per Bank Cubic Yard ÷ Push Distance and Working Grade
   B. Truck/Loader
      Loose Cubic Yards per Hour
   C. Dragline
      1. Swings per Hour
      2. Bank Cubic Yards per Hour
4. Coal Loading and Hauling
   Tons Loaded per Shift

Overall Measures
1. Tons of Coal per Man Shift
2. Total Bank Cubic Yards per Operating Hour

Conclusion

This paper has shown how to divide a company by unit operations and to measure productivity in each operation. Exhibit 1 summarizes the productivity measurements for unit and overall operations in a coal mining operation. Most of these are simple to develop and relatively easy to measure and evaluate. Dozer productivity is the most difficult to evaluate because it is complicated by a range of operating factors. Multiple measurements for a given operation are useful so that operators will not optimize a single measurement (e.g., optimize penetration rate, but fail to consider cost).

Overall productivity is the key to survival in any industry. In the case of the coal mining industry, increased overall productivity can only be assured by examining and improving unit operations that lead to the final output. The productivity measurements we have presented exemplify how a little creativity can be the difference between success and failure. If mining operations are to remain competitive in today's depressed industry, a company must be able to maintain high productivity levels, and productivity measurement is the basis for productivity improvement. Similar creative analysis can be the key to success in other industries, too.

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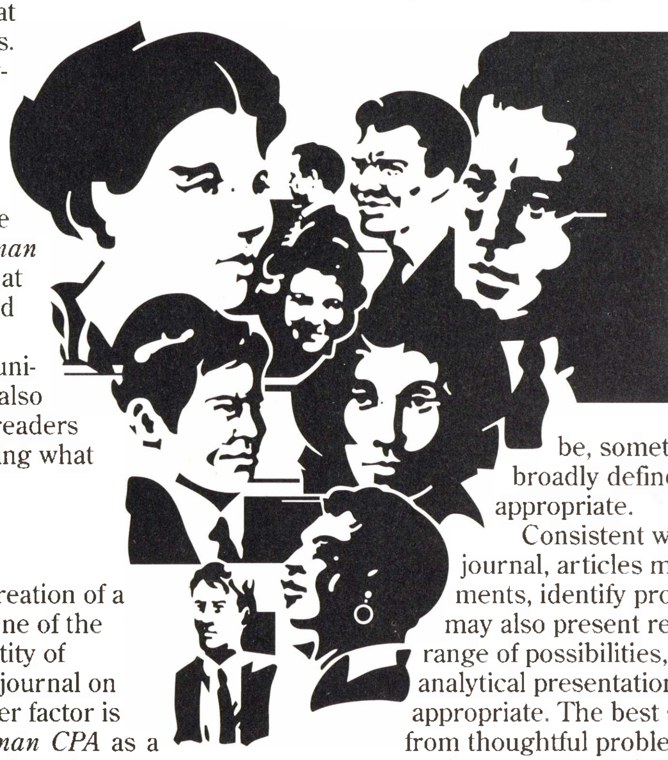
Karen L. Hooks, Editor
University of South Florida

Introducing the Gender-Issues Department

The initial reaction to a new department in *The Woman CPA* for gender-related articles might appropriately be one of surprise. Not surprise that *The Woman CPA* should begin such a department, but surprise that it does not already have one. The gender-issues department will be a new addition, but the subject material has traditionally been a significant part of the journal. The department is a new showcase for articles that address gender-related topics.

To say that the new department will include articles on topics traditional to the journal does not mean that there will not be changes. Upon being invited to edit the new department for *The Woman CPA*, I began considering what the department should be and should strive to accomplish. This introduction will communicate those thoughts and will also provide information to both readers and potential authors regarding what to expect.



Why a Gender-Issues Department?

Several forces instigated creation of a gender-issues department. One of the strongest was the large quantity of manuscripts received by the journal on gender-related issues. Another factor is that people look to *The Woman CPA* as a source of information on gender-related issues. The journal is sponsored by two organizations of accountants, the memberships of which are almost exclusively female. Given the demographics of the sponsoring bodies, it seems quite logical that the journal should receive and publish gender-related manuscripts. Further, although the journal has quite a diverse readership, the members of the two sponsoring organizations are an important part of that readership. It is hoped that those members may benefit from a regularly published department on gender-related issues.

The Woman CPA is already a leader in publishing gender-related articles. That leadership is demonstrated not only by those articles published, but also by the submissions received and the interest of the readers. Accordingly, it is appropriate that the journal highlight this aspect of its service. It should display focussed direction and accomplishments in this important topic area. *The Woman CPA* has the unique opportunity to excel in this market segment. Accompanying this opportunity, and a strong market position, is also the responsibility to provide a quality product.

Striking a Balance

The gender-issues department will have goals and objectives that are consistent with *The Woman CPA*. Probably of greatest importance among these is the goal to produce articles that are perceived to be of high quality and to meet the needs of the various constituents of the journal. Given the various constituents, this ultimately means that the journal is, and the gender-issues department will be, something of a hybrid. The topics are broadly defined and many methodologies are appropriate.

Consistent with the editorial policy of the journal, articles may report on current developments, identify problems and develop theory. Articles may also present research results. Given this wide range of possibilities, descriptive work, case studies, analytical presentations and empirical studies are all appropriate. The best scenario is a range of presentations from thoughtful problem identification, through analysis, exploratory research and confirmatory research. All possibilities are encouraged and invited as submissions.

The gender-issues department has a challenge before it. That challenge results from the diversity of readers of *The Woman CPA* and the basic difference between its primary authors and its readers. The readers are practitioners, academics and students. Each category of reader is likely to be most satisfied with an article style that differs from styles best suited for the others. Most of the manuscripts submitted are written by academics. Thus, the challenge is to produce and publish a mix of articles that will satisfy the various reader groups from manuscripts written, for the most part, by academics. This means that articles must address interesting subjects, at least some of which are very timely, in a sufficiently credible manner to instill confidence in what is being reported while still being readable. The articles must include sufficient background and authoritative support to satisfy the academics, and yet, not so much as to bore practitioners or confuse students.

Achieving an appropriate blend of readability and support is difficult. To date, the most effective mechanism for producing articles with the required balance has been iterations of the writing process. In the future, perhaps the style of the department will be so clearly defined that manuscripts will be submitted with the balance already achieved. If so, it will be good for the readers, who will enjoy the articles, and the academic submitters, who will have a respected and well defined publication outlet.

Balance is the key word. Often manuscripts are received that contain excessive amounts of terminology that is very specific to the research process, and is cumbersome to non-academic readers. Authors would be well advised to use easily comprehended terms. Alternatively, sometimes manuscripts are received that merely set forth opinions. Sometimes the opinions are controversial and strongly stated. While problem identification is an appropriate objective of a manuscript, the department, even though it does relate to gender-issues, is not a "soap box". Problem identification should be supported and related to practical issues or existing theory. While controversy may be interesting to read, credibility is critical for respect.

A final component to producing articles that will accomplish all the department's goals is the review process. The reviewers for the gender-issues department contribute varying types of expertise. Some are very knowledgeable in the subject area. Some are expert in the research methodologies. Still others contribute editorial feedback on whether a manuscript is interesting. These reviewers will be able to contribute significantly to the process of producing articles and should be a major help to the authors.

The Topics

Subject areas that are appropriate for the gender-issues department are quite broad. They include any topics related to gender. For example, several gender-related issues that affect individuals on a personal level are the balance of family and career management, career planning and relocation. At the business-entity level gender-related topics include: recruitment, promotion, turnover, compensation, benefits, client service, sales, scheduling and the work environment. Clearly, all these topics affect individuals, as well, and could probably be addressed from a micro level. A number of topics that have been included in psychology and management journals may also be gender-related. Some of these are: job satisfaction, organizational commitment, motivation, mentoring, productivity, management styles and organizational structure. These might also be studied from a company's or an individual's perspective. The topics appropriate for the column might be even broader. Examples are: history, laws, discrimination, taxes, education, public policy, politics, ethics, economics and linguistics. Obviously, the possibilities are extensive.

As stated earlier, there are virtually no limitations on the appropriate methods of investigation and presentation. This should be even more apparent from the list of subjects. A wide diversity in topics calls for a wide diversity in investigation and reporting. Innovation and creativity are invited in manuscripts, and will be valued.

Conclusion

The initiation of the gender-issues department presents a unique opportunity and challenge. I am quite honored to have the opportunity to guide the department in its formation. I ask for your support, either as a reader or a potential author. I invite any with an interest to submit manuscripts. The final product will be dependent upon many factors. The most important of those, however, is the manuscripts received.

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Microcomputers and their Effect on Auditing

By Jerry King, Stanley Lewis and Judith Abendschein

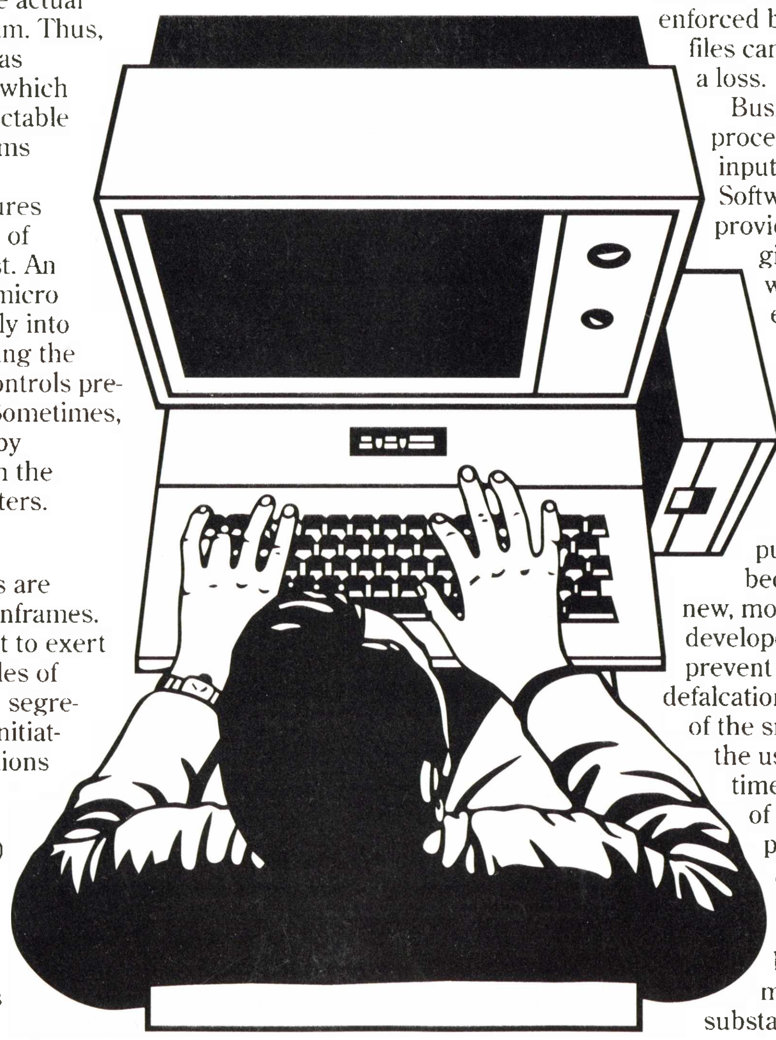
Auditing Microcomputers

Control Problems:

Auditors use personal computers as an audit tool to make examinations more effective and efficient. Additionally, auditors concern themselves with micros used by clients in their operations, since there is difficulty in controlling usage of these computers. Since they are easily transportable, the auditor cannot be sure that the micro being examined is the one that the client actually uses. It is very easy for the client to add or remove various boards and/or chips before the auditor arrives.

Most micro application software includes the source code(s) which contains the actual instructions for the program. Thus, the microcomputer user has access to this information which allows for potential undetectable modification of the programs that a business uses daily.

Internal control procedures that provide for separation of duties simply may not exist. An on-line system allows the micro user to input orders directly into the computer. Thus, allowing the user to choose from the controls prescribed by management. Sometimes, there are not any policies by management that deal with the control of personal computers.



Control Procedures:

Clearly, microcomputers are harder to control than mainframes. However, possibilities exist to exert control over them. Examples of control procedures are (1) segregation of the functions of initiating and recording transactions and storing data, (2) close supervision of the micro users and their actions, (3) training programs to ensure a minimum level of computer skill, (4) required vacations of employees which provides an opportunity to discover problems or irregularities that an employee may have, and (5) the company should have a policy of recruiting, hiring, and promoting honest and competent employees.

Businesses using micros should control the acquisition of software by having a list of application and control features required for all programs purchased. There should be software policies subjecting all modifications to the scrutiny of an outside expert or another member of the firm. Also software security is enhanced by employing a software librarian, requiring passwords for access to sensitive programs and files or excluding them from disk menus. Access to the microcomputer itself should be restricted. There should be a strictly enforced backup policy to ensure that files can be reconstructed in case of a loss.

Businesses should have procedures that govern data input, processing, and output. Software is available that provides screen formats, which gives the user an outline as to what kind of information to expect. This software contains prompts and editing capabilities which determines what type of data (numeric or alphabetic) the user inputs and the order of inputs.

Control over microcomputers is possible. However, because the technology is so new, most firms have not yet developed the controls necessary to prevent or detect mistakes and defalcations. It is possible that many of the small firms are experiencing the use of computers for the first time; therefore, the knowledge of what controls should be in place is unknown. Thus, auditors usually cannot place much, if any, reliance on information generated by the micro and, therefore, must expand their substantive testing.

Microcomputers as Audit Tools

The use of microcomputers as an audit tool has eliminated an enormous amount of "pencil pushing". The auditor now has more time to concentrate on making the important decisions every audit demands and to address the question of audit risk.

Audit Automation:

The micro stores a client's financial information, prepares audit time and budget data, and generates trial balances, working papers, adjustments, and financial statements. Also, it ensures that all documentation is complete. The ability to quickly create the current year's trial balance, compare it to last year's and analyze any differences is only the beginning of what the personal computer can do for the auditor.

Instead of manually making adjusting and reclassification entries, the auditor merely keys the entries into the computer and it will summarize and post them automatically. This capability is invaluable for showing the effects of proposed adjustments to the auditor and the client. This allows the auditor to devote more time to the demanding areas of the audit, thus possibly reducing the audit fee to the client. Automated work papers can eliminate delays that would be inevitable with a manual audit.

A computerized audit time and budget report allows the audit team to record their time budget on the micro as the audit progresses. Comparisons of the actual time spent on the audit with budget time are available at any phase of the audit. This variance information can be useful in planning future engagements. The time budget is also useful in calculating the final fee, because it contains the audit member's time and hourly billing rate.

Audit Programs:

These invaluable audit techniques are now available to virtually every CPA, thanks to the low cost of microcomputers and the wide range of software on the market. Off-the-shelf programs such as spreadsheets, word processors, data bases, and timekeeping tools are available at reasonable prices. Software programs are available in hard coded or template format. Hard-coded programs are written in a formal language and are rigidly structured. The user inputs data on a formatted screen and receives output in a preformatted report. Some auditors prefer hard-coded programs because they are better at catching mistakes than template-based software. Also, modification of them is impossible. However, hard-coded programs take longer to run.

Template micros programs constructed on already-existing software, such as spreadsheets and data bases, provide more flexibility than hard-coded programs. The powerful spreadsheet, Lotus 1-2-3, is an example of a template program used by many auditors. A template can access commands of an underlying program; thus, the auditor might summarize and post adjusting entries by giving one command and the template does the balance of the work. It is easy to adapt templates to new needs, and they are faster than hard-coded software. They have fewer error-trapping capabilities; therefore, more knowledge and attention to details is necessary than with hard-coded software.

Auditing Functions

Basic Audit Functions:

The microcomputer becomes an audit tool once it is automated to do audit functions. The objective should be to continue to improve the effectiveness of the audit by improving planning and the analysis of evidence which reduces time and cost to the client. This means using spreadsheet, mathematical, statistical, and graphics software to plan engagements, analyze internal accounting controls, and perform statistical sampling and analytical review of the data collected.

One way to computerize audit planning is to design a general engagement program tailored to individual audits. Many CPA firms currently have a standard typewritten program that is easily transferable to the micro. The addition of procedures for specific industries generates the entire audit program in one assignment. To design a program that fits a specific client, the auditor selects only the procedures that are applicable to that particular firm. The computer prints out a program containing the required procedures and additional ones selected by the auditor. The printout also includes a space for dates so that the auditor may initial procedures when completed. Usually, a space for handwritten comments is available. Thus, the auditor has benefits of a standardized program, an efficient planning program, and a plan that is neat and readable.

Microcomputers can help auditors in evaluating a client's system of internal accounting control. It is possible to computerize internal control questionnaires in a manner similar to that used with audit programs. Tailoring of individual programs based upon the client's size, particular industry, and the auditor's past audit experience is possible.

Other basic audit applications for the microcomputer are substantive testing and statistical sampling. The auditor can use a micro to randomly select an appropriate sample and to evaluate the results. Spreadsheets are invaluable for the calculation of financial ratio analysis, depreciation schedules, interest expense, prepayment analysis, income tax liability, and deferred taxes. Because these procedures are some of the last-minute tasks in an audit, the microcomputer is an invaluable aid.

Advanced Audit Functions:

Many auditors now use their microcomputers in the ways discussed above. However, many CPA firms are using their micros to perform more advanced audit functions. Sophisticated computing techniques are being used to improve an auditor's decision making process and to enhance the scope of the audit. All of the techniques discussed above, as well as general audit software produced by CPA's, data bases, networks, and decision support systems are useful in performing advanced audit functions.

Decision support system programs assist auditors in making decisions during the audit engagement. An example is Arthur Andersen's Audit Software Application Development Aid (ASADA), which assists the CPA in developing generalized audit software uses and tailoring the output format. The auditor responds to questions asked by the software program and receives guidance from the program. The software specifications and operating control statements are input into the client's mainframe, either at its physical location or by a telephone link. The mainframe then processes the program and prints the output or sends it back over the phone lines to the auditor's micro. This is much quicker than having the auditor devise the software specs and control commands. The decision support concept is useful in many audit areas, such as planning and controlling the engagement, determining the scope of the audit, studying and evaluating internal control, and creating and evaluating statistical sampling. Support systems assist the auditor in making decisions, but do not make the decisions.

Telecommunications allows auditors who have micros equipped with modems to access on-line private and public data bases and use that information to enhance and streamline analytical reviews. The transferring of working papers to the audit team's home office allows the partner in charge of the audit to quickly spot problems and to begin a personal review of the audit. Telecommunications are useful in operating generalized audit software programs on the client's mainframe. Telephone lines are useful in gaining access to the client's computer, thus enabling the auditor to upload audit software programs on the mainframe, and then have the results downloaded back to the micro and printed at the auditor's office.

Future Auditing Developments:

The use of the microcomputer to perform basic and advanced audit functions will grow rapidly. What lies beyond these sophisticated applications? One such development will be the use of the micros to continuously monitor the client's system of internal control and to create audit files from the client's data controlled by the auditor. Telecommunications, or some other method, would permit a continuous link with the client's computer. The client's data is then continuously available for analysis. Because the auditor will need less time to perform auditing tasks, more time becomes available for analysis and decision making.

What is truly amazing about the microcomputer's impact on auditing is that it has occurred in such a short time period. Barely ten years ago, using the micro to assist on an engagement was completely unknown. What will the future hold for auditors and their personal computers? Computer hardware and software in the near future will shift toward the new super micros with multi-users, multi-tasking systems and hard-disk capabilities. The capabilities of the new models of micros is approaching that of the minicomputers. The capability of running different programs and handling more than one user simultaneously will be common.

The use of laser technology by auditors is just on the horizon. This storage device is available right now, but many CPA's find it too expensive. Laser disks whose contents are write protected are used to protect the security of macros. The computer will automatically ask questions that only the legitimate user can answer and will not allow any processing to take place if any of the responses are incorrect. Because of the mammoth storage capacity of the laser disk, all of the programs an auditor needs for an engagement will be on one disk. The programs are tailored to the personnel level by including only those programs each auditor requires for a particular audit.

Another future development (which is technologically feasible today, but too costly for widespread use) is networking through a building's electrical system. This elimin-

ates the problem of linking the audit team's micros to a printer or a kind of mass-storage device with cables. The auditor will be able to access a laser disk for information, process it, and print it out just by plugging in the equipment, regardless of the location of the auditor in the building.

Future developments also include improved versions of touch-sensitive pads to input information - especially handy for working with systems flowcharts - and voice-digitizers that will allow the recording of voice input on a disk. Also systems that will automatically save whatever is being processed every few minutes without interrupting processing will greatly enhance productivity. This will reduce time spent on manually saving work and reconstructing files lost because of absentmindedness. Finally, software development systems could go to expert systems that actually make decisions. These systems will not supplant an auditor's judgment; however, they will provide input in making decisions. An example is the PC Auditor software package that is new on the market. This program allows the auditor to perform comprehensive audits of critical applications of personal computers without the need for technical computer expertise. Once these systems are proven reliable, they could become an important part of the review process by requiring the auditor to justify any decision different from the system's judgment. It is possible that expert systems could provide a defense in lawsuits.

Implications for Auditors

The immediate future will see an enormous degree of change in microcomputer technology, with corresponding developments in auditing techniques. What effects will the use of these computers have on the auditing progression? For one thing, the tremendous gains in productivity afforded by micros permits a smaller audit team. It is possible that the demand for auditors, especially in entry-level positions will decrease. this in turn could signal a drop in enrollment of students majoring in accounting.

Microcomputers have brought about a new educational need, however. Training of people to use them is necessary, and it is especially vital that auditors learn how to use spreadsheets effectively, since they are the key to using a micro as an audit tool. This need for specialized knowledge will have a profound effect upon the power structure of CPA firms. Auditors must be able to deal with a microcomputerized audit environment. This ability will help beginning auditors to move up faster to a level where decision-making is more important than pure "pencil pushing" activities, because the personal computer removes a great deal of drudgery from auditing. Today, decision-making is the province of the upper echelon of the CPA firm. This situation will have to change, though, because the micro enables auditors in the field to take on more responsibility.

There will possibly be less need for seniors and managers in CPA firms because staff accountants will be better qualified. Upper and middle-level managers will have to delegate more and will have to be able to discern which decisions to handle in the field. They will have to be thoroughly familiar with the micro's capabilities to accomplish this successfully.

Summary

Microcomputers have had, and will continue to have, a tremendous impact on all parts of auditing. Auditors will face new headaches when clients begin to widely use micros, because the auditor will have to audit around the computer. Yet, micros more than make up for this inconvenience when used by the auditor as an audit tool. As a CPA firm goes through the stages of using the micro the effectiveness and efficiency of the audit improves. The auditor is happy because more time is available to spend on the complex parts of the audit, while the client is happy because the productivity gained from using the micro means a lower fee for an examination of higher quality. The use of the microcomputer has implications for the future of auditing. There will be a need for fewer staff auditors, and a decentralization of power in CPA firms because of the "drudgery" time the micro saves and the decision-making time it yields. Future developments will only accelerate these trends. Although microcomputers have had a profound effect on a great many vocations, it would be difficult indeed to find one that it has changed more than the field of auditing.

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Judith Abendschein *is a Certified Public Accountant and has earned the MPA degree from the University of Southern Mississippi.*

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Roland Madison, Editor
John Carroll University

"Perspectives on Education"

Big 8 CEO's Speak with One Voice

In a very unusual action, all of the Big Eight CEO's joined in the coauthorship of a challenging statement directed toward the accounting education process and the academic community. The statement, which was issued in April 1989, is titled *Perspectives on Education: Capabilities for Success in the Accounting Profession.*

For the benefit of our readers and members (AWSCPA and ASWA) who are not engaged in Big Eight public accounting practice, this column presents an overview of this unusual and potentially far-reaching Perspectives paper. Please note that this column does not purport to critically evaluate the paper, although some anecdotal commentary and observations may be used primarily for purposes of clarification.

Although the paper is only fifteen pages in length, it does address a broad range of concerns that are shared by the Big Eight CEO's. The purpose is described in the foreword and is further justified in the first section of the paper which is titled "The Current Environment." This is followed by four brief but pointed topical areas that, according to the authors, must be considered by accounting educators if the profession is to succeed.

The foreword begins: "We have developed this paper because of our concerns regarding the quality and number of accounting graduates available to the public accounting profession. At the same time, questions are being raised by the academic community regarding the effectiveness of accounting education."

These concerns appear to have merit. In *Issues in Accounting Education,* Brent Inman, et. al. notes that during the period 1977-1986, while freshman enrollment in business schools increased 36%, the enrollment of freshmen in accounting declined 23% (Spring, 1989, pp. 29-46). The same article reports that in 1986, the overall SAT score for freshmen was 1015, with accounting majors averaging 963 while the finance area drew students with an average SAT score of 1030.

In June, 1989, the AICPA distributed their annual study titled *The Supply of Accounting Graduates and The Demand for Public Accounting Recruits.* While this study does not address the quality issue, it does validate the quantity shortfall suggested by Inman (1989). "Examining the historical trends in the numbers graduated, it is apparent that the number of bachelor's degree and master's degrees has declined steadily since 1984-1985." (AICPA, p. 13)

Part I: The Current Environment

The authors believe that the "profession faces a unique convergence of forces, which creates a critical need to reexamine the educational process." (p. 1) These environmental forces are identified as follows:

- The profession is changing, expanding and, as a result, becoming increasingly complex.
- Declining enrollments in accounting programs indicate that the profession is becoming less attractive to students.
- Implementation of the AICPA requirement of 150 hours of education for membership by the year 2000 must be addressed. (p. 1)

The second environmental factor mentioned is rather obvious but the other two factors require some elaboration. The first factor relates largely to the expanded scope of services offered by CPA firms and their expansion into international markets combined with the complexity of both domestic and international business transactions. Taken as a whole, this requires a higher caliber of individual to succeed in the accounting profession.

It is obvious that the first factor relates to the third factor noted. Namely, the extension of the educational requirement of the profession to 150 hours, or five years, from its present four year requirement. While the Perspectives paper authors appear to support this expansion of the educational requirement, they suggest that "Effective marketing of this additional investment required of students will be essential to meet the demands of the profession." (p. 2)

Following this thought, it is interesting to note from the previously cited 1989 AICPA Supply and Demand Study that the demand by public accounting firms for master's degree holders fell dramatically from 5,620 in 1976-1977 to just 2,050 in 1987-1988 (p. 27). If the leaders of our profession are supporters for an extension of the accounting education process, they should be concerned about any interpretations that may be developed from these statistics.

Part II: Recommendations for Change

The authors begin this section of the Perspectives paper with a statement that many will possibly feel is quite powerful:

The current environment makes real curricular change essential and necessitates response from a dynamic partnership between practitioners and academicians. First, the profession must specify the capabilities necessary for practice and communicate these to the academic community. With this input, faculty can develop a relevant and stimulating curriculum with state-of-the-art teaching methods. (p. 3)

After the preceding statement, the paper presents five recommendations that should be followed for developing a coordinated approach in making the changes that are deemed necessary for accounting education. These recommendations, quoted in part, are as follows:

1. "'The Capabilities Necessary for Practice,' which follows these recommendations, should be used by the academic community as a statement of needs for the profession." (p. 3)
2. A broad based coordinating committee should be formed to address the issues "that impact the educational process and to guide the academic community in re-engineering the curriculum." An impressive partial listing of representative accounting organizations was suggested in the paper. (p. 3)
3. "Our firms (the Big Eight) should participate in, and support, the coordinating committee and other appropriate groups with leadership, guidance and financial services." (p. 3)
4. The American Accounting Association, as the primary representative of the academic accounting community, was identified as the organization to be charged with the establishment of the coordinating committee. (p. 3)
5. "Designated representatives from the profession should actively participate in the review of the accreditation standards to be conducted by the AACSB." (p. 4)

The authors close this section by urging the organizations responsible for the preparation of professional examinations (e.g. CPA) to be sensitive to "the broad skills and knowledge needed by the profession. Particularly important are the scope and timing of the CPA examination." (p. 4)

The latter comments likely relate to the proposed change in the CPA exam to a largely objective format and the timing difficulty many graduating seniors have in sitting for the May CPA exam while also preparing for final examinations.

Before leaving this part of the Perspectives paper, three observations about the preceding recommendations would seem appropriate. The first is that the recommendations may be perceived as placing the academic community in a somewhat uncomfortable reactionary posture, much like that the profession has experienced during the last two decades. This refers to cases of litigations, and problems with standards setting and quality control, among other issues.

Secondly, given the first observation, it should be noted that the academic community has been charged with the leadership role to re-engineer the educational curriculum with the accounting profession, acting in a highly participatory, if not dominate fashion, much like the SEC has done at times in the accounting standards setting process. However, to the credit of the profession, the Big Eight firms are prepared contribute up to $4 million over a five year period to support the development of stimulating and relevant curricula.

Finally, it is noted that the partial listing of professional organizations participating in the coordinating committee did not include representation from either the non-national public accounting firms or from the ranks of AWSCPA-ASWA. Given the personnel demands by the larger non-national firms and the significant portion of staff positions women now account for in public accounting, as well as in the college classrooms, it would seem logical that these groups would be represented on the coordinating committee when its formulation is completed.

Part III: The Capabilities Necessary for Practice

The authors acknowledge the 1988 AICPA booklet titled Education Requirements for Entry into the Accounting Profession. The AICPA monograph illustrates a model 150 hour program of study with "narrative descriptions of the appropriate content in specific areas." However, when describing the capabilities necessary for practice in accounting, the authors of the Perspectives paper focus more "on the desired outcomes of the educational process, as compared with courses of study." (p. 5)

The authors indicate the importance of this area by starting their discussion with the following boldface statement:

Education for the accounting profession must produce graduates who have a broad array of skills and knowledge.

The following is an outline summary, developed from the Perspectives paper, of the capabilities necessary for success in the practice of accounting. (pp. 5-7)

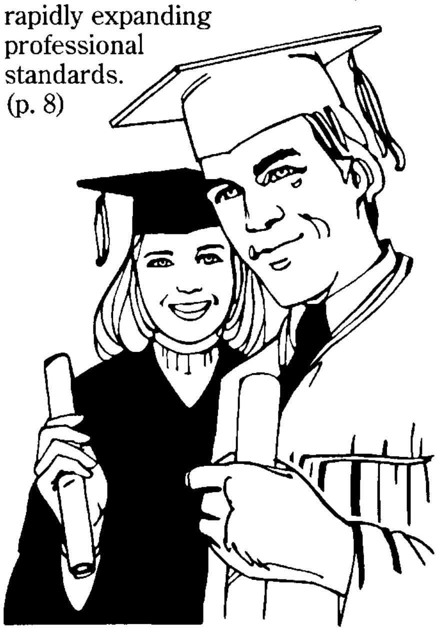
I. Skills for Public Accounting
   - Communication skills
   - Intellectual skills
   - Interpersonal skills

II. Knowledge for Public Accounting
   - General knowledge
   - Organizational and business knowledge
   - Accounting and auditing knowledge

The authors devote ample discussion in the paper to each of the areas of skill and knowledge identified. Their comments to conclude this area provide a good summary of that discussion.

Accounting knowledge cannot focus solely on the construction of data. The ability to apply decision rules embodied in the accounting model is only part of the goal. Accountants must be able to use the data, exercise judgments, evaluate risks and solve real-world problems.

Passing the CPA examination should not be the goal of accounting education. The focus should be on developing analytical and conceptual thinking — versus memorizing rapidly expanding professional standards. (p. 8)



The preceding is well stated. Few if any academics or businesspersons would take issue with these thoughts. However, it would be most interesting to learn if recruitment patterns are altered when the alumni of any given institution do not successfully complete the CPA examination within three years of graduation. Perhaps this may not be a problem in the future if accounting programs are re-engineered as suggested in the Perspectives paper.

Part IV: Sources of Capabilities

The authors cite three sources of the skills and knowledge that support the successful practitioner. These sources are:

- Talents
- Pre-entry education
- Continuing education and development (p. 9)

There is a significant relationship between the first two items identified. To paraphrase the authors, while each person has certain inherent talents that may contribute to a successful professional career, the pre-entry education must be perceived as sufficiently stimulating, interesting and rewarding to draw the best students. The term "pre-entry" education is used to describe any education required prior to beginning licensing procedures.

A comment pertinent to the above was made by Morrie Helitzer, Publisher and Editor-in-Chief of *The New Accountant,* in his June 1989 letter to the academic users of his magazine Mr. Helitzer expressed concern about the extensive material being published which suggests a decline in the quality of new accounting students and recent accounting graduates. Even more pertinent to the above discussion, Mr. Helitzer states: "For non-accountants, and certainly at the pre-college level, I can tell you that the stereotypes about accountants are alive and flourishing."

This simply means that it is not only the quality of "pre-entry" education alone that will attract the best and the brightest persons into the profession. The practitioners must show that our profession provides the opportunity for growth, challenge, and the quality of life that young persons find attractive, and even necessary in their professional lives today.

The discussion about "Continuing Education and Development" as the final source of capabilities needed to succeed in accounting states that this source would involve "all training, education and development during a period a person is involved in the public accounting profession." (p. 10)

The authors suggested that continuing education programs would have to be redesigned just as the university curricula are re-engineered. One concern expressed was that licensing laws "must include appropriate credit for continuing education in the development of all the capabilities." (p. 10) The granting of partial or prorated credit by some states for certain CPA programs may be the cause of the concern expressed in this area.

Part V: The Challenges for Education

It is this portion of the Perspectives paper that will likely stimulate the greatest amount of activity throughout the academic community.

To achieve pre-entry education that will develop the needed capabilities requires a complete re-engineering of the educational process. This includes defining objectives, content, design and methodology. Piecemeal responses to educational reforms will not suffice. (p. 11)

The authors identify five major components of higher education which will require significant consideration for changes by the academic community. These components are:

- Curriculum
- Faculty
- Students
- Universities
- Accreditation (p. 11)

As stated at the beginning of this article, the purpose of this particular column is to provide an overview of the Perspectives paper. A comprehensive discussion of the far-reaching implications of this paper are beyond the scope of a single column. The reader is reminded of this because of the extensive implications for this particular portion of the Perspectives paper.

Having noted the preceding limitation, a brief comment about each of the challenges for education is provided.

Curriculum

Given the thrust of the discussion, this area could be renamed as "teaching methodology." The authors call for newer delivery techniques that stimulate student involvement. This includes seminars, simulations, extended written assignments and case analyses. The traditional textbook/ lecture "style should not survive as the primary means of presentation." (p. 11) Team approaches to problem solution are encouraged. Another suggestion is that "the re-engineering of the curriculum should include a careful evaluation of topical coverage in all subjects." (p. 12)

Faculty

"Most accounting faculty base their course content on information gained through secondary sources — usually textbooks and sometimes standards." (p. 12)

The authors also believe that accounting faculty has a persistent "schism" problem. "The classroom experience is diminished by the distance between pedagogical content and practice reality. Academics and practitioners would benefit from the stimulation and challenge that come from a meaningful association." (p. 13) This is followed by the suggestion that faculty members seek practice internships, attend joint conferences with practitioners, and participate in professional accounting organizations and seminars.

Students

Given the increased educational requirements and the free market economy in which we live, the challenge here is to convince students that the additional education investment to enter the accounting profession is worthwhile. A "stimulating curriculum and the expectation of increased opportunities upon graduation" are needed to attract the best persons to the accounting profession. (p. 12)

Universities

According to the authors, the current reward structure of most educational institutions does not attach a high value to curriculum development activities that are drawn from professional service and practice related programs. If curriculums are to be re-engineered and include relevant topics to business and accounting practice, "individuals must be rewarded for their contributions." Obviously the authors are sensitive to the significant priority that has been given to research and publication activity relative to teaching and curriculum development activities. (pp. 12, 13)

Accreditation

"Accreditation standards must be responsive to the desired outcomes of educational preparation as outlined in this paper. The accreditation process must also be sensitive to, and supportive of, the innovation and experimentation that are inherent in curricular change." (p. 14)

Given the changes that may be forthcoming in the near future, the authors appear to suggest that the AACSB should administer their accreditation standards in a broader and perhaps a more flexible manner, certainly as it pertains to accounting programs.

Conclusion: The Opportunity

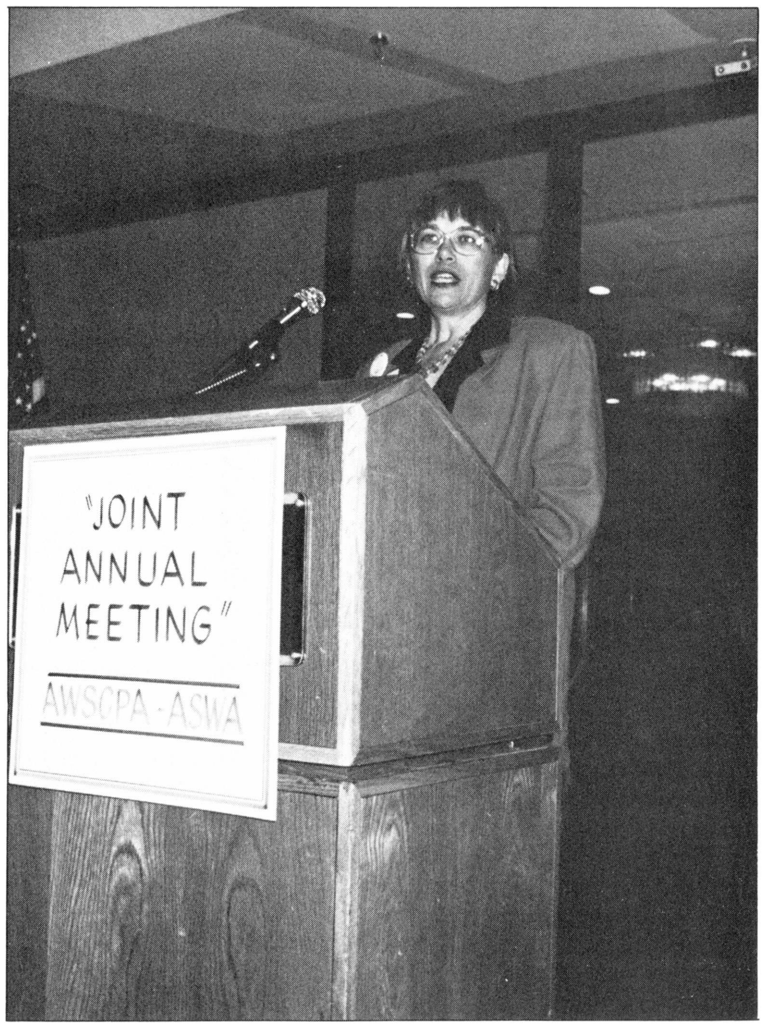
It is best to quote from the Perspectives paper so that nothing may be lost in interpretation.

The challenge for all individuals and organizations concerned with education for the accounting profession is to create a curriculum that will draw the best students and provide them and their instructors with an interesting, demanding and relevant experience. The vitality generated by the creative effort will enrich both universities and the profession. Meeting this challenge will support excellence in education well into the next century.

The opportunity to make the accounting curriculum an active, dynamic experience exists now. A convergence of environmental and institutional factors makes significant change possible and essential. Faculty, universities, accounting firms, professional organizations and accrediting bodies must find a way to work together to create a positive future for the profession. (p. 15)

After reading this column, you are encouraged to obtain a copy of the Perspectives paper from any local practice unit of the Big Eight firms, read it and evaluate its merit for yourself. You may decide that you too have an active part to play in the future of the accounting profession.

Roland L. Madison, CPA, Ph.D., is professor of accounting at John Carroll University, Cleveland, Ohio. Dr. Madison is a member of AAA, AICPA, NAA, ASWA, AWSCPA, and serves as the Secretary of the Cleveland Chapter of the Ohio Society of CPAs. *Acknowledgement: As editor of the education department, Dr. Madison wishes to acknowledge the financial support from John Carroll Alumni at Arthur Andersen & Co. and the JCU School of Business.* *Editor's Note: When the Perspectives paper was published, the Ernst & Whinney - Arthur Young and Deloitte, Haskin & Sells - Touche Ross mergers had not been announced. Therefore, all references to the Big Eight pertain to this pre-merger group of firms.*



Lillian Parrish, outgoing editor of The Woman CPA *giving her Report of the Joint Committee to Study the Woman CPA, at the 1989 JAM in San Antonio*

Jewell Shane, CPA
Book Review Editor

The Stress Strategists

Written By Dorothy M. Walters and Maureen Mulvaney, Royal Publishing Inc., CA
Reviewed by Diane M. Semanske, Planning Resource Center, Walden, N.Y.

Have you ever felt that if you could just eliminate the stress from your life, you would have it made? Don't kid yourself! Without stress, life would be very boring. Stress is what makes the world go 'round. Stress is the motivator that gets you going. Eu-stress, good stress, that is. Dys-stress, bad stress, is what most of us need to eliminate. In many cases, even Dys-stress can be harnessed, and turned to your advantage. My favorite quote from this book, by "Anonymous" is: "The only difference between a diamond and a lump of coal is that the diamond had a little more pressure put on it."

There are as many different kinds of stress as there are kinds of people. If you think you have a stress problem, if you don't know what is wrong with you, or even if you are sure you don't have a stress problem, this book could be an eye-opener.

"The Stress Strategists" is a collection of essays dealing with different kinds of stress, and the many different ways of coping with it. The format of the book, its larger than usual print, and more than usual white space, is itself a stress reducer.

The writers include some of the best known names in America in the field of life management strategies. Many of them got their start in this field because of some very stressful event in their own lives. They were able to re-organize or re-direct themselves and become happy and successful individuals.

Some sources of stress are pretty obvious - your house burns down, you're on a hijacked plane, you have severe financial problems, you discover that your husband has cancer, you are suffering from occupational burnout, etc. But, would you believe - the lighting in your work place, rock and roll music, a dental problem, being a "pleaseaholic: - can also be sources of severe stress?

The book explores all of the above sources of stress and more, and offers a wide range of coping mechanisms and solutions.

- Ira Klitzner, a financial consultant, offers an eight-point strategy for financial success for those with money problems.
- Lou Peel, who was on the hijacked TWA Flight 847, was spared some of the trauma of the ordeal by her Toastmasters training. She also offers some pertinent travel tips.
- Helen Rose McDowell, whose life was all but destroyed by a dental mis-alignment, says that "... the real energy crisis is the HUMAN ENERGY CRISIS - not petroleum." If your health is not good, you don't have energy.
- Marieta Pickett explains how the lighting in your work place can affect you. She also talks about a report by a behavioral kinesiologist on a study that showed the "short-short-long-pause" beat of rock and roll caused 90% of the study group to lose 2/3 of their muscle strength. She further observes that the human body does not come with an owners manual. Her suggestions for reducing stress in your life are of interest to everyone - stressed or not.
- Katherine E. Bury, who lost everything in a house fire, tells how she was helped by numerology, and how it can help you.
- Marla McWilliams, consultant and lecturer, talks about the 80/20 rule and how it applies to time management. She also explains about her favorite quote "Five minutes is a long time." This essay, for any one in business, is worth far more than the price of the book, all by itself.

These are only a sampling of the help offered in this book. Other ideas considered are Yoga methods, the need for balance (between arrogance and humility), the use of goals, good health habits, "MUSTology", a five-stage program for behavior control, self-administered hypnotherapy, seven keys to self-actualization, and, my own favorite, "The Pet Prescription".

The appeal of this book lies in the varied viewpoints presented. You get a better appreciation of the complexity of the problem, along with a variety of tools with which to eliminate it.

Pages: 479 Cost: $29.95

Maureen Mulvaney, giving the dynamic keynote address at 1989 JAM in San Antonio.

Book Reviews

Jewell Shane, CPA
Book Review Editor

Leadership Secrets of Attila the Hun

Written By Wess Roberts, Ph.D., Warner Books, Inc.
Reviewed By Chris Fugate, CPA, Stone Mountain, GA

Attila the Hun is usually one of the last people who would be considered a suitable role model. Yet in a thought-provoking, entertaining manner, Wess Roberts has employed the "Scourge of God" as a prototype of a brilliant leader. As Roberts writes in the preface, "... Attila's robust life and controversial image as a determined, tough, rugged and intriguing leader ... provide a compelling opportunity for relating leadership fundamentals to a new generation of leaders who have no fear of him and who might enjoy a novel pedagogic treatment of what can otherwise be very mundane, unexciting reading."

The book is divided into 16 concise chapters. The first part of each chapter provides a brief look at an aspect of Attila's life, pertinent to the chapter's topic. These peeks at his life show a far-sighted, shrewd man who wove a group of nomadic tribes into a formidable army, capable of inspiring fear throughout Europe. The second part of each chapter is an imaginary speech made by Attila to his chieftains in an attempt to impart his leadership skills to his subordinates. These campfire chats have no direct correlation to current happenings, but by generalizing the concepts, Roberts allows the reader to more easily relate them to his or her own situation. A few of Attila's "comments" from the chats are given below. These remarks show that some truths are timely to virtually any era, group, business, or situation. The following statements could have been made by Attila to his assembled chieftains or by present-day executives to their department managers, with minimal adjustments:

Do not waste stamina trying to negotiate with implacable, uncooperative enemies - conquer them by more effective means.

Leaders must provide direction to their Huns, never letting them wander aimlessly.

Doubt and delay are frequently symptomatic of chieftains promoted beyond their capacities. On the other hand, we often find ourselves in unfortunate situations in which too many chieftains make too many decisions with too little wisdom.

Attila's speeches cover what Roberts terms the essential qualities of what must be learned before one can become an able "chieftain:" loyalty, courage, desire, emotional stamina, physical stamina, empathy, decisiveness, anticipation, timing, competitiveness, self-confidence, accountability, responsibility, credibility, tenacity, dependability, and stewardship. Roberts feels these are qualities gained only through the passage of time, a wealth of experience, and the determination of perseverance. As he writes in the chapter titled "In the Roman Court: Leadership Qualities," "There is no quick way to develop leaders. Huns must learn throughout their lives - never ceasing as students, never being above gaining new insights or studying innovative procedures or methods - whatever the source. Our leaders must learn early in their service certain basic qualities and have opportunities to mature in them."

Roberts uses Attila as an excellent example of what happens to an organization without properly trained leaders. From a historical perspective, although Attila was a consummate leader, he failed to train chieftains who could assume leadership of the Huns when Attila could no longer lead his people. After Attila's death, the Huns lost all sense of unity. Divisiveness among the tribes splintered them into purposeless factions. Lacking united goals and leadership, military defeats became as common as victories once had been.

There are valuable lessons contained in this book, and their presentation is refreshing and innovative in its metaphorical approach. The book aims to provide a solid beginning to a comprehension of what constitutes leadership. It fulfills its objectives.

Pages: 110 Cost: $16.95

The Woman CPA Instructions to Authors

Editorial Philosophy

Manuscripts should be of interest to those in the field of accounting. They may cross all industry segments and job activities, including but not limited to: public accounting firms, government, industry, not-for-profit, other private enterprise, education, audit, tax, consulting, internal audit, operations, financial planning, litigation support, asset management, general management, etc.

Manuscripts are welcomed using various methods of exploring issues including, but not limited to: problem identification, theory development, exploratory research, confirmatory research. Methods of presentation are not limited and may include, for example, description, case study, empirical analysis.

Writing style will be important to the selection of manuscripts. Published articles must be easily understandable and interesting to an audience consisting of both practitioners and academics. Topic rather than research methodology should be the primary focus. Any original research must be based on sound research methodology, and sufficient background and explanation must be included in the manuscript to enable the reader to assess the reliability of the work done.

Format

All manuscripts should be typed on one side of 8½"x11" paper and be double-spaced, except for indented quotations, footnotes, and references. As a general rule, manuscripts should be as concise as the subject and research method permit. Margins should be at least one inch to facilitate editing.

The cover page should contain the title and author's name.

When not in lists, numbers from one through ten should be spelled out, except where decimals are used. All others should be written numerically. The manuscript should be written in third person and in non-sexist language. Articles by one author should not employ the editorial "we."

Length

Manuscripts of 2,000 to 3,000 words (eight to twelve typed pages) and no more than two tables are a good length. However, manuscripts should not exceed 4,000 words exclusive of tables or other illustrative material.

Headings

All headings should be flush left with the margin, with initial capital letters. Subheadings should be placed flush left with the margin, and underscored, with initial capital letters. If third-level headings are necessary, they should be indented the same as a paragraph indent, underscored, with only the initial letter of the first word capitalized, and followed by a period with the text following immediately.

Tables and Figures

Each table and figure should appear on a separate page and bear an arabic number and a title. A reference should appear in the text for each table or figure.

Literature Citations

Footnotes should not be used for literature citations. Instead, the work should be cited by the author's name and year of publication in the body of the text in square brackets, e.g., [Armstrong, 1977]; [Sprouse and Moonitz, 1962, p. 2]; [Hendriksen, 1973a]. Citations to institutional works should employ acronyms or short titles, where practical, e.g., [AAA ASOBAT, 1966]; [AICPA Cohen Commission Report, 1977]; [APB Opinion No. 15]; [SFAS No. 5]; [ASR No. 191]. If an author's name is mentioned in the text, it need not be repeated in the citation, e.g., "Armstrong [1977, p. 40] says …"

If a reference has more than three authors, only the first name and et al. should appear in the citation. In the list of references, however, all of the names must be shown. As indicated in the Hendriksen citationbove, the suffix, a, b, etc., should follow the year when the reference list contains more than one work published by an author in a single year.

When the manuscript refers to statues, legal treatises or court cases, citations acceptable in law reviews should be used.

Footnotes

Textual footnotes should be used for definitions and explanations whose inclusion in the body of the manuscript might disrupt the reading continuity.

Numerous footnotes and citations do not necessarily make for a better article and are not an indication of thorough research.

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When the manuscript cites other literature, a list of references to follow the text must be included. Each entry should contain all the data necessary for identification. The entries should be arranged in alphabetical order according to the surname of the first author. Institutions under whose auspices one or more works without authors have been published should also be shown in alphabetical order. Multiple works by the same author(s) should be listed in chronological order of publication.

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Three copies of each manuscript should be submitted. manuscripts should not be submitted elsewhere. Previously published materials should not be submitted.

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All persons submitting manuscripts will receive a letter of acknowledgement. Manuscripts are blind refereed and the process takes one to two months. Authors will be notified concerning acceptance, recommended revision, or rejection of their manuscripts. Manuscripts will not be returned unless pre-addressed, stamped envelopes accompany the submissions.

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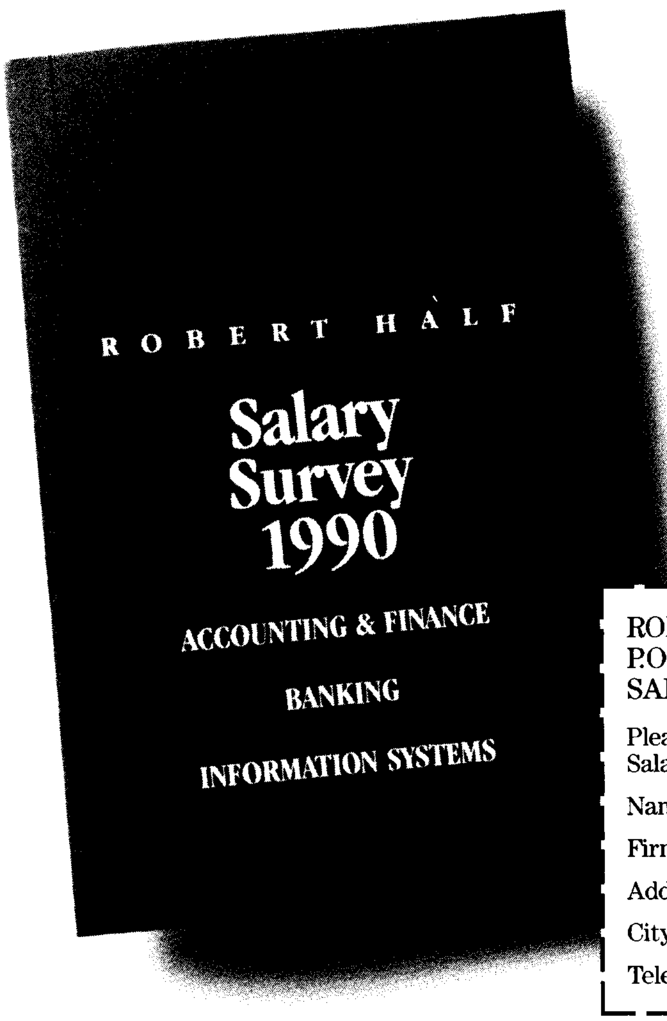

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