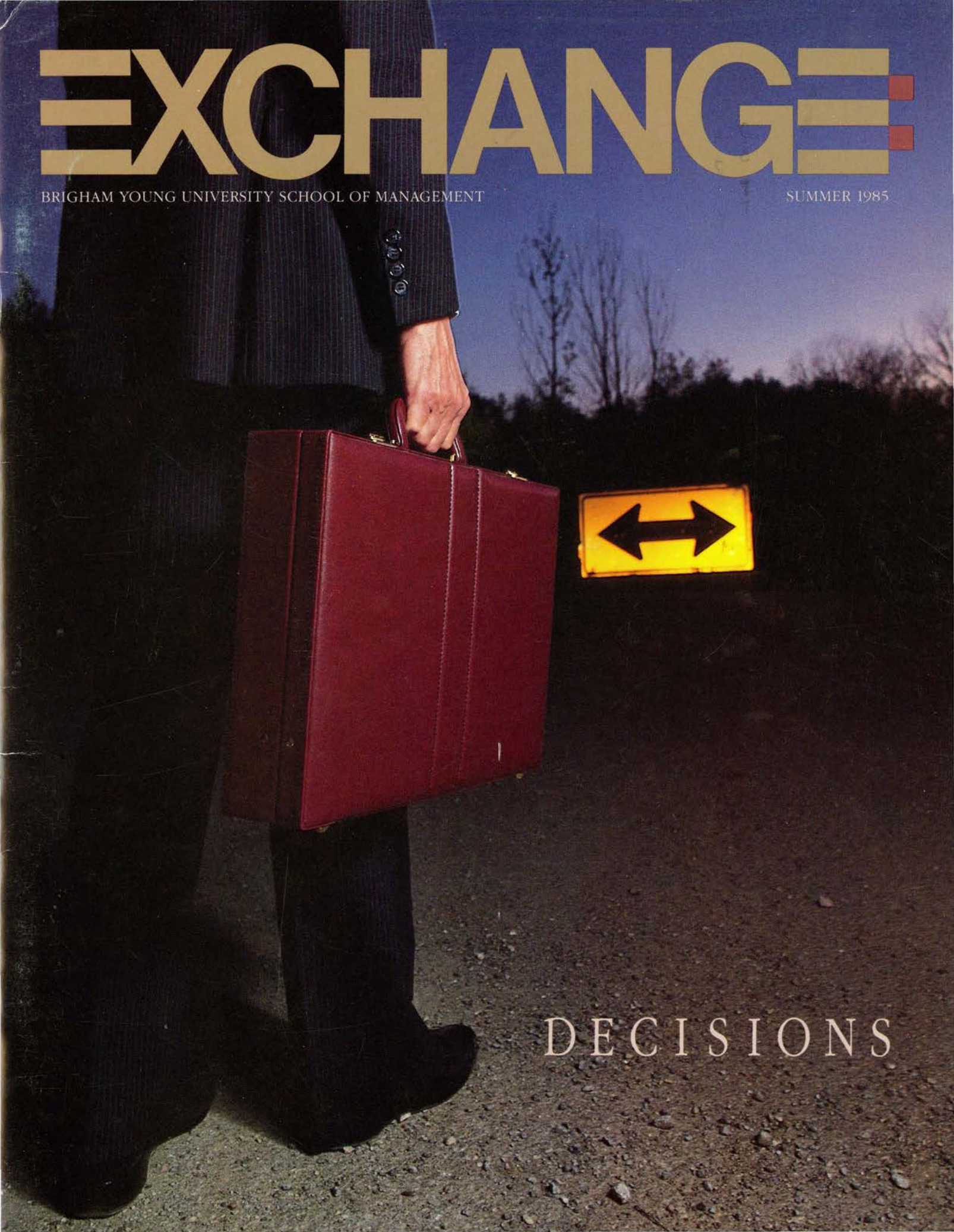


EXCHANGE

BRIGHAM YOUNG UNIVERSITY SCHOOL OF MANAGEMENT

SUMMER 1985



DECISIONS

D E A N ' S R E P O R T

As I complete my first year as dean, I am pleased and encouraged by our continued movement toward academic excellence. Administrators, faculty, and students are working together to build a management curriculum that will move the School of Management into a solid position among the best programs available anywhere.

One aspect of that movement that pleases me is the growing base of support we are receiving from alumni and friends. This edition of *Exchange* recognizes the many people and organizations who have provided funding support to the School of Management during the past year. Two listings appear: one of gifts given by individuals and one of organizations' donations. The gifts range from a few dollars to hundreds of thousands of dollars, but all are greatly appreciated. I'd like to give you a few examples of how such gifts can make a difference.

One major contribution allowed us to expand our computer equipment and labs. As a result, SOM students are now getting more experience with the technology so essential to their success in today's management world. At the same time, faculty members are becoming more productive using their computers, and administrative matters are being handled more efficiently.

Gift monies have also made possible additional faculty research. For example, Dr. James B. McDonald of our managerial economics faculty has received support for his nationally recognized work in forecasting techniques. He has represented the university well as he has presented his findings at major conferences at Princeton University, and in Montreal, London (Ontario Province), and Boston. His work—and, thereby, BYU—are becoming well known in the field of econometrics.

Dr. J. Patrick Kelly, a specialist in retail marketing, has been active in research sponsored in part by funding from the Skaggs Institute of Retail Management. His work dealing with point-of-purchase signs and per-unit forecasting has brought new light to an area where few, if any, studies had been done before. As a consequence, Kelly and his associates are making a major professional contribution.

Another fine example of nationally recognized research comes from our School of Accountancy. Dr. W. Steve Albrecht teamed up with Professors Keith R. Howe and Marshall B. Romney to summarize several years of intensive study of white collar crime in a recently published book, *Deterring Fraud: The Internal Auditor's Perspective*.

Students have also been beneficiaries of gift monies. Several new scholarships were created this year (see "Briefly" section of this issue). More than one hundred students now receive scholarship support, while many more profit from assistantships which combine financial help with the opportunity to gain one-on-one learning experiences with professors who are working on major research projects.

All donations are appreciated. And continued financial support is essential to the development of the School. I personally thank those of you who have contributed. I invite you to continue and, where possible, enlarge your support as we progress toward excellence in management education.

Paul H. Thompson

C O N T E N T S

BRIGHAM YOUNG
UNIVERSITY SCHOOL
OF MANAGEMENT
SUMMER 1985

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The quickened pace of technological development makes long-range organizational plans especially vulnerable to unforeseen factors. BYU administrator Lynn McClurg's stratified planning approach suggests a model for staying flexible yet anchoring decisions in predetermined values framed by top management.

18/ Financial Modeling: Computers Aid Forecasting Art

Brent D. Wilson

Financial modeling, a sophisticated technique for dealing with uncertainty, consists of determining key variables and defining relationships among them in mathematical terms. Professor Brent Wilson explains the process involved in creating a model and the advantages of using one.

23/ The Silver Student Investment Fund Sets Sail

What better way to learn how to make financial decisions than to have a sizable amount of real money involved? A team of MBAs learns a lot from managing a \$100,000 portfolio. Here's their report.

28/ You're Fired . . . (if I can work out the legal implications)

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Have you ever wondered if the time and energy spent in participative decision-making is really worth it? Managerial communications specialist Paul Timm cites the advantages and disadvantages of using groups to make decisions and proffers three options managers can select to avoid having PDM destroy productivity.

Addresses**10/ 1985 Graduation Convocation Addresses**

Lawrence L. Corry and Dallas H. Bradford

Patience, integrity, and a pioneer spirit were themes addressed by business leaders Lawrence Corry and Dallas Bradford in speeches given to graduates during School of Management and College of Business graduation convocations this spring.

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We Can't Go On Meeting Like This



Paul R. Timm

The President of Moose Lips Corporation meant well, but somehow things just didn't work out quite the way he thought they would.* Matt Bayless had built Moose Lips from a one-man operation working out of his garage to the largest manufacturer of camping and recreational gear in the Pacific Northwest. Despite rapid financial growth, Matt had the uneasy feeling that things wouldn't continue to be so good. He was disturbed by a marked rise in production costs and an apparent increase in competitor activity. Nothing specific, but he was just uncomfortable.

Then he hit on an idea.

After dusting off a management textbook he'd read in college, Matt decided

to use "participative decision making" to cope with the company's problems. "Sure, that's it," he decided. "We'll have a big meeting and get some new ideas."

His memo to all employees went out the next morning. Everyone was "invited" to participate in an all-day retreat at the Seaside Resort and Conference Center about 20 miles out of town. The agenda was set: The employees would all be getting together to "share their ideas" on how to retain market share, how to cut production costs, and "any other topics relevant to the success of their business." The entire company would be shut down all day Friday while the 126 employees conferred.

A few days before the big meeting, word filtered back to Matt that a number of the Moose Lips employees had been mouthing off about having

* This commentary is based on an article by the author which appeared in *Communicators Journal*, Sept./Oct. 1984, pp. 54-8.



to spend a whole day at the conference center.

They already were feeling a lot of pressure to keep up with their work, and, in fact, they were coming up on the busiest time of the year for several departments. Besides, no one seemed to understand what was supposed to be accomplished at the proposed meeting.

Matt was upset by the grumbling. After all, participative decision making was supposed to make workers feel good. Everything he read said PDM is the way to go. So he sent another memo to answer their objections. He explained (in a tone that didn't succeed at concealing his irritation) that, while no specific proposals were expected to be voted on at the meeting, he felt the opportunity to "share input" was very important, and he expected everyone to be there.

The big day came, and 115 people showed up for the all-day retreat. In the opening session, the president stated his concerns about market share and production costs. He then indicated that, to be systematic, the morning would be spent in 12-member "buzz groups" dealing with market share. Each group would report back to the larger assembly just before lunch. The afternoon would follow a similar schedule but would deal with production problems.

The buzz groups were assigned randomly, and everyone—including Matt and the other company officers—participated. By five o'clock when the meetings broke up, it was clear that most participants were frustrated by the futility of the whole process. Employee grumbling had become a dull roar. No one, including Matt, could clearly describe what had been accomplished. And the net cost to the company went far beyond the charges for the rental of the facilities and the catered coffee breaks and lunch. The costs included well over a thousand man-hours.

And what did Moose Lips Corporation get for this expenditure of time and money? An objective observer would be hard pressed to see any gain. Indeed, the downside—the feelings of frustration among both

bosses and employees—would likely outweigh any "solutions" which were presented.

An exaggerated story? Not at all. In my research into the uses and misuses of meetings, I constantly hear of stories like the Moose Lips situation. Well-meaning leaders with sincere concerns for their organizations fall into the all-too-common trap of misusing participation as a decision-making strategy.

Is PDM Killing Productivity?

It doesn't take much heavy research to conclude that a lot of people get tired of the overuse of meetings. Some surveys estimate that executives commonly spend 70 to 90 percent of their workdays in meetings of some type. Most of these meetings at least pretend to exist for the purpose of making decisions.

As I talk with people about the meetings they attend, I often hear cynical comments like:

☐ A meeting is a place where you can show your colleagues in length what you lack in depth.

☐ In every meeting, there's at least one fellow who obviously hates the idea of returning to work.

☐ Many of the meetings I attend are held simply because it's 9 o'clock in the morning, and we always have our meeting at 9 o'clock each morning.

☐ Maybe if we waste time in a few more meetings, the problem will eventually go away, and we won't have to make a decision.

☐ A committee meeting is where the boss gathers subordinates to hear what they have to say, so long as it doesn't conflict with what he's already decided to do.

Why the increasing dissatisfaction with meetings? Isn't such "participation" widely regarded as desirable? After all, participation is democratic, and democracy is good; therefore participation *must* be good.

Maybe so. But if all these meetings are so good, why do more and more decision makers in organizations suffer from feelings of restlessness, disgruntlement and raw boredom as they come out of their many meetings?

The answers lie in management's

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tendency to choose participative decision making out of *habit* rather than out of thoughtful consideration of the pros and cons of the process. Often the best decision strategy does not call for the group process.

Advantages of Participative Decision Making

Groups seem
better at
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problems.

At the risk of stating the obvious, one potential advantage of group decision making is that a variety of points of view can be brought to bear on a problem. This can be useful *if* the group has developed systematic ways of assimilating the ideas provided. To be successful, the group must use adequate procedures for:

- ☐ sharing ideas and perspectives so that members may build upon one another's insights.
- ☐ resolving differences among group members which, if left unattended, would lead to excessive conflict and would prevent eventual consensus.
- ☐ drawing out useful information from all participants while toning down those who tend to dominate.

Under such conditions, a synergistic effect can result. In other words, the group's decision can be better than the sum of all individual decisions. So, the No. 1 advantage of participative decision making is that groups can reach synergy—sometimes.

In addition to the way the group shares information and builds consensus, the nature of the problem will also determine where synergy can result.

Studies show that groups are better at solving problems that require the making of relative rather than absolute judgments. That is, groups can better solve problems for which there is no single, correct solution and for which solutions are difficult to verify objectively. This finding suggests that groups are not better than individuals at handling certain kinds of clerical tasks (such as adding up columns of figures) or at solving logical "brain teasers" which require purely rational answers. Problems having only one correct answer are more "structured" and can often be better solved by a motivated individual—or by a computer.

Groups, however, can be more successful than individuals working alone when the problem is complex, having many parts and requiring a number of steps to solve. Groups also seem better at dealing with controversial or emotionally charged problems.

A second advantage to group decision making is that participants are likely to feel a stronger commitment (and/or less resistance) to a group solution than to an individual decision. Similarly, if those who participated are commissioned to execute the decision, they will do so more faithfully because they understand why and how the decision was reached.

In one well-known study conducted in the late 1940s, workers' resistance to technological changes in their jobs was measured. The studies found that when workers participated in discussions about implementing new machinery on the job, significantly less resistance to those changes arose; among work groups that did not participate in planning the machinery changes, more resistance to the changes emerged. Later research has repeatedly confirmed that participation reduced resistance to changes, at least among American workers in industrial settings.

Unfortunately, today some managers use this principle to reduce employee resistance without allowing genuine participation. The manipulative manager wants workers to feel that they are participating. He goes along with the group so long as it comes up with the same decision the manager wanted in the first place. The group is used as a rubber stamp for the boss, not as a true decision-making body. Nonetheless, when particularly emotional decisions need to be made, such as organizational changes that workers may see as a threat to job security, meetings can dissolve the resistance if the meetings are handled well.

How the Advantages Can Be Negated

The significant advantages of meetings, then, are (1) synergy can result in potentially better-quality decisions, and (2) less resistance to implementation may result. There are,

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however, situations under which these advantages can be completely negated by inept or unqualified participants and leaders as well as by some other factors I'll discuss in a moment.

When managers opt for participative problem solving, they give up some control over the decision process. Although relinquishing control can result in more useful decisions, there remains some risk. Conversely, some managers use meetings as a way to pass the responsibility to others instead of making difficult or painful decisions.

One disadvantage, then, is that meetings are used as substitutes for action. Some managers confuse the appearance of activity with the hard reality that nothing substantive is happening. Consciously or unconsciously, they hope that by "talking it out" they can avoid the unpleasant necessity of acting.

Ultimately, meetings should reach a decision, but too often they don't. When meetings lack such closure, it's likely to be because:

- ☐ The problems or issues haven't been clearly defined,
- ☐ The participants aren't really interested in reaching a solution,
- ☐ The task is not amenable to the group process, or
- ☐ Some procedural roadblocks haven't been handled well.

The meeting-as-a-substitute-for-action can become a bad habit. A "when-in-doubt-call-a-meeting"

attitude can eat up enormous amounts of time and energy. And in the end the tangible result is nothing, except possibly some social satisfaction from sitting around gabbing or playing organizational games. The Moose Lips example showed a number of these drawbacks.

Another disadvantage of group decision making is that meetings cost too much money and time. A group decision inevitably takes more time than an executive action, and the costs of such time can really add up. If it takes a 12-member committee three hours to make a decision, and the average committee member's salary is \$35,000 a year (including benefits), the decision costs at least \$605.88. And this estimate includes only direct labor costs.

We also need to consider the ripples of psychological costs to the individual and the organization, which can be staggering. For example, work done by subordinates is often tied up while the boss is in conference. Talented employees engage in monotonous busywork while waiting for direction from the absent leader. Customers are annoyed that they cannot talk with the conferring manager. The manager's work piles up, so that he is faced with a stack of phone messages to respond to, a pile of papers in his in-basket, and half-dozen people who just have to talk about some pressing matter when the

A "when-in-doubt-call-a-meeting" attitude can eat up enormous amounts of time and energy.

It's as Easy as A-C-T

Managers normally have a choice of three decision strategies. They may make a decision working ALONE (using information readily available, including computer data, of course), in CONSULTATION with others contacted individually, or TOGETHER with others in the group process.

A "yes" answer for each of the following questions strengthens the case for the use of participation, while a "no" answer suggests that working alone or in separate consultation with others may be more efficacious for producing an acceptable decision.

Do the people who would be involved in the decision:

- ☐ Have sufficient knowledge or expertise to make a contribution to a sound decision?
- ☐ Feel enough responsibility or concern for the problem that they will want to help solve it?
- ☐ Share the objectives and goals of the organization or group that will ultimately choose a solution (no serious "hidden agenda" conflicts)?
- ☐ Have sufficient communications and interpersonal skills to work effectively in a group?
- ☐ Understand the limitations within which the organization must work in dealing with this problem?

conference ends. Each of these kinds of things saps psychic energy from people who are paid to use their minds.

The question is one of opportunity cost: What could the meeting-goer do with that time if he or she weren't tied up in the meeting? The manager must ask, "Is this meeting worth it?"

Can we be sure that the \$600-plus committee decision described above is better than one reached by a manager working alone for, say, \$8.50 in labor costs? In many cases, we cannot. In fact, under some circumstances, a group decision may be worse.

The group process can backfire, resulting in poor decisions. This can occur when:

□ Group members lack "hard data" about the topic of discussion. The outcome of such a group will be no more than pooled ignorance. If the issues require specialized expertise, go to an expert. Don't muddy the water by using a committee.

□ Excessive conflict prevails within the group. In meetings, some conflict is potentially useful—it can help refine and improve ideas. But when participants in a group get into a no-holds-barred, win-lose position, the outcome in terms of both relationships and quality of decisions can be devastating.

□ The group takes excessive risks. Still another problem which has been identified by social scientists can affect the quality of group decisions: the risky shift phenomenon. Some groups tend to make more daring or more risky decisions than individuals do when working alone. Social pressures from within the group can result in potentially counterproductive behavior; some group members adopt a "safety in numbers" position and recommend extreme solutions that they wouldn't dream of taking responsibility for as individuals. You end up with a lynch-mob mentality.

□ The free flow of information in the group is impeded by "groupthink" or individual dominance. The term groupthink was coined to describe a condition of likemindedness which tends to arise in groups that are particularly cohesive, where members' desires for consensus or harmony

become stronger than their desire for a good decision. Under such conditions, critical thinking and objective analysis of ideas are foregone in deference to a smooth-running group. The likelihood of groupthink increases if the group becomes insulated from outside influences and the fresh flow of information.

A second type of pressure which censors the free flow of information is individual dominance. In many groups, certain individuals become excessively dominant by virtue of their personality, articulateness, or organizational position. President Matt Bayless ran a serious risk of censoring the Moose Lips group discussion by assigning himself and his vice presidents to discussion buzz groups. Most employees would feel uncomfortable disagreeing with the boss.

Other participants become reluctant to interact freely because they see their contributions are of lesser value. While individual dominance can speed up the decision process, it does so at the risk of reducing decision quality. The loud-mouth member's ideas may not be the best ones, but they often find "acceptance" among the group that has grown weary of resisting.

So, when should we use participation, and when should we avoid it?

The disadvantages of meetings can be overcome, and the advantages can be maximized. My point is that managers need to think about the disadvantages and benefits before calling a meeting. The group process should not be the first choice, and we should not use meetings out of habit.

Like any habit, frequent meetings are "comfortable" in a rather perverse way. But the manager who will succeed in the turbulent times ahead is the one who is willing to question especially the "ways we've always done things." Even management approaches that are "obviously" good, like participative decision making, should be subject to a fresh look.

When faced with a need to make a decision, we can work alone, gather additional points of view from others individually and then decide, or call together a group to deal with the problem. ≡

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S T R A T I F I E D

Lynn McClurg

Consider the club sandwich. It has a top and a bottom with various layers in between—turkey, lettuce, cheese, perhaps bacon and several other items. A toothpick holds the parts together.

Now consider the two typical corporate or institutional planning strategies, often called “top down” and “bottom up” planning. Both have significant problems.

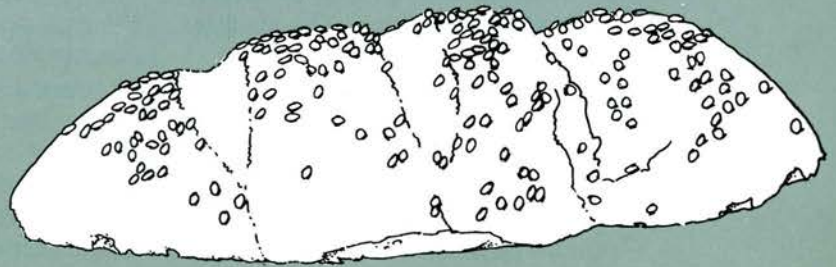
Planning done by top management exclusively often doesn't meet the needs of those at the operational level. Executive-level managers just aren't exposed enough to the layers below them.

Those at the operational level, on the other hand, frequently don't see the big picture clearly enough. Their planning often fails to fit well into the overall organization.

That brings us back to the club sandwich, an apt metaphor for a synthesis of these two flawed approaches that yields a successful strategy: stratified planning. This kind of planning is done by managers in each layer, or stratum, of an organization but is guided by clear, general principles that apply to all. We (in BYU's central administration) are using this approach to guide planning for the emerging University Information System (UNIS).

The unique feature of this approach is analogous to the toothpick in a club sandwich—in this case several toothpicks. These are the philosophical statements framed by top management. Just as toothpicks run through every layer of a club sandwich, these guiding philosophies, or planning criteria, should run through every stratum of an organization as managers make long- and short-range plans.

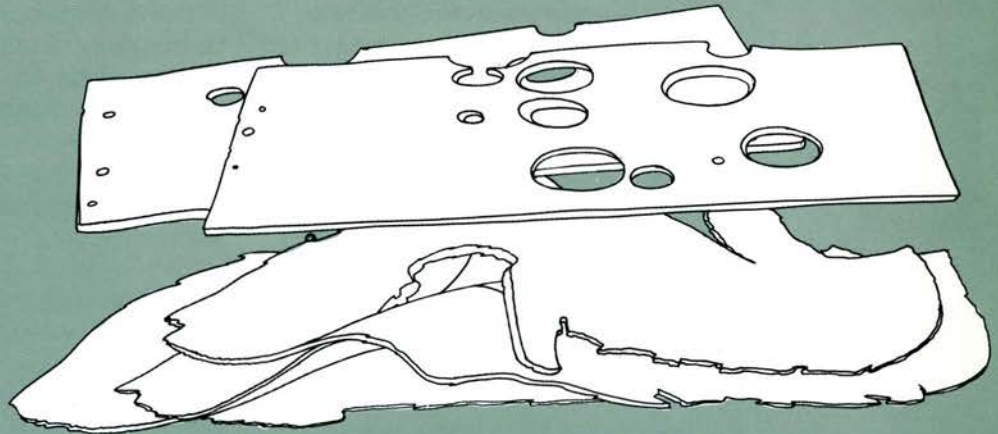
One toothpick in a corporation's sandwich, for example, might establish whether the corporation intends to be a technological leader or to be a conservative actor in using technology. Another company may consciously



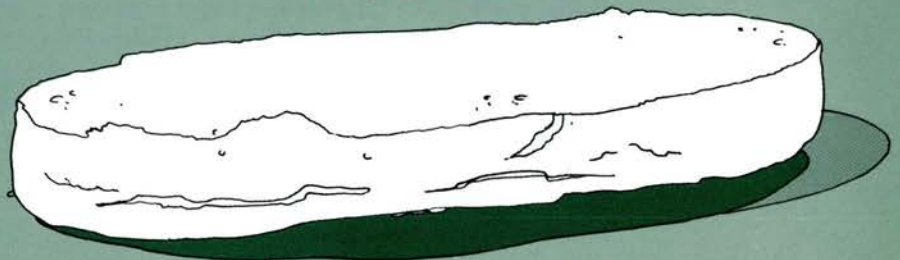
THE CLUB



SANDWICH



MODEL



P L A N N I N G

decide to focus on new products versus seeking market shares with products like those already available. A toothpick in a university's sandwich might state the expectation that before graduating, all students must be well prepared in using computer technologies applicable to their majors.

If managers at each level of an organization understand the "toothpicks," they can do the best possible planning within their areas, and their plans will fit within the overall organization's parameters and goals. Planning is unimpeded except for the slight intrusion of the planning criteria. A toothpick, after all, occupies very little space and doesn't harm the sandwich. It just holds it in proper orientation.

I have found these planning toothpicks most useful when they are viewed more like conduits than solid skewers—conduits that carry feedback to the executive level. With this feedback, executives can refine the planning criteria. That keeps the criteria dynamic and evolving, not rigid and unyielding.

Stratified planning has been applied to development of BYU's UNIS. The system encompasses every means of information gathering and dissemination. It includes all machinery, data, systems, programs, and personnel involved in or affected by the university's information processing technology—computers, telephones, and television, plus their networks and wire plants, print and copy processes, and storage and retrieval systems.

Information systems, by their very nature, present a new management challenge because they are not marked by the traditionally clear boundaries of other resources. Coping with this new resource requires a fresh planning strategy.

Most traditional long-range planning strategies establish a point on the horizon—an objective—and then put in place parameters within which the objectives would be met.

But for information systems, the planning horizon has become so short that it is virtually nonexistent. Technologies are emerging so quickly and evolving so radically, sometimes in a matter of months, that normal parameters become meaningless—there is no time for a stream of planning documents. In the evolution of UNIS, we must make sound decisions quickly in an established strategic direction (symbolized by the toothpicks), recognizing that we cannot manage toward a concrete objective on the horizon.

The overall guiding strategy of stratified planning for UNIS is to keep our options open. Every decision must be made remembering that the technology will soon change. If we do things right, and as the technological horizon unfolds, we will not have closed off options.

For example, as we consider networking arrangements for our campus computers (our computers range from mainframes to microcomputers), we cannot turn to industry standards and protocols because there aren't any. Whatever partial or temporary connecting architectures we choose now must be flexible enough to accommodate a desired technology that might come along. Since we know we have a huge investment in software for our mainframe computers, we have concluded the mainframes will, at the very least, be involved in any network. All interim networking decisions, therefore, must accept the mainframes.

That philosophy of keeping our options open, expressed in a category called "architectural considerations," is one of the six "toothpicks" we have established for the University Information System. Similarly, we have articulated "toothpicks" in five other categories: standards and policies, software and hardware selection, usage decisions, applications development, and data considerations.

The standards and policies philo-

sophy, as another example, outlines what information-processing standards of literacy the university ought to embrace. We have determined that students will be expected to come to the university with basic information-processing skills, and admissions will be weighted toward those who are prepared. Those without the skills will be expected to educate themselves through extracurricular study.

For a business that offers a product, planning criteria might include guiding philosophical statements in such categories as projected market share, product differentiation, and advertising strategy. There is nothing sacred about the categories; they are hooks on which to hang an organization's overriding philosophies.

With articulated planning parameters in mind, managers at each level can write plans for their areas of responsibility. We have not dictated any particular format at BYU for UNIS plans except that they contain a long-range plan (three to five years), a plan for the next budget cycle, and an explanation of how resources already available will be used or disposed of. This last requirement, an unusual request, helps departments and colleges determine whether their current resources are already obsolete and need revision.

Managers forward short summaries of these plans to our office. We ask that their summaries include a description of the impact decisions could have on other units within the university, or any impact they foresee that others' decisions could have on them. As the summaries come in, we adjust the criteria as needed.

In any corporation or institution, sound decision-making at each stratum will build a strong organization that is nevertheless adaptable. Like a good club sandwich, its layers will retain individuality and flavor, with just a toothpick here and there to securely—yet flexibly—hold everything together. ■

1985 Graduation Convocation Addresses

Insights into the Human Character

Lawrence L. Corry

Resisting "the temptation to speak to the subject of how to achieve success in the 'real world,'" Amalgamated Sugar Company Executive Vice President Lawrence L. Corry told students completing their master's degrees that they "are already successful according to the most accurate definition of success, which is being on the path of progression."

Corry went on to share some things he has learned, been exposed to, and that he has come to believe in over the past twenty or so years since he "sat where you now sit."

"There are four broad categories of human characteristics in which most of these insights could be included: determination, reaction, patience, and service. Most importantly . . . we must remember to weave the thread of integrity through all that we do or all that we plan. There is absolutely no substitute for integrity."

Discussing determination, Corry told the graduates that strong desire focused on worthy aims breeds determination. "You should plan a lot. Especially more important actions. But don't make everything you do fit a given plan. You must be the master of your plan, and allow much room for spontaneity. Often I have found that many things that are

good for us and change our charted course for the better happen as flukes, rather than being planned."

"Be interested in the entire scope of your business, not just that segment of which you are a part. Another way of saying that is be nosy about what others are doing, without being critical of how they do it. Ask questions, but not those questions that put others on the defense."

"One of the best insights to share on this subject is the necessity of being detail-oriented. Many of you may say, 'But I'm not a detail person.' I challenge you to think of the one favorite hobby, pastime, or recreation that you may have. Do you not go into great detail in preparation for it or in the performance of it? There is much detail even in being a spectator of sports."

"A personal attribute greater than almost any other—that of self-esteem—can be the best motivator toward worthy determination. No matter how many failures we experience, we must work to hold ourselves in very high regard. Failures are often the steps to achievements, as paradoxical as that may seem. We must never give up on ourselves nor forget the value that we have, especially to others."

Discussing the second characteristic, reaction, Corry told the students that they will face many things that they have not planned for, or were not wishing to have happen, or that are plain uncomfortable, harmful, or discouraging. "You

should remember that it is not what happens to you that counts, but it is how you respond to what happens to you that really counts."

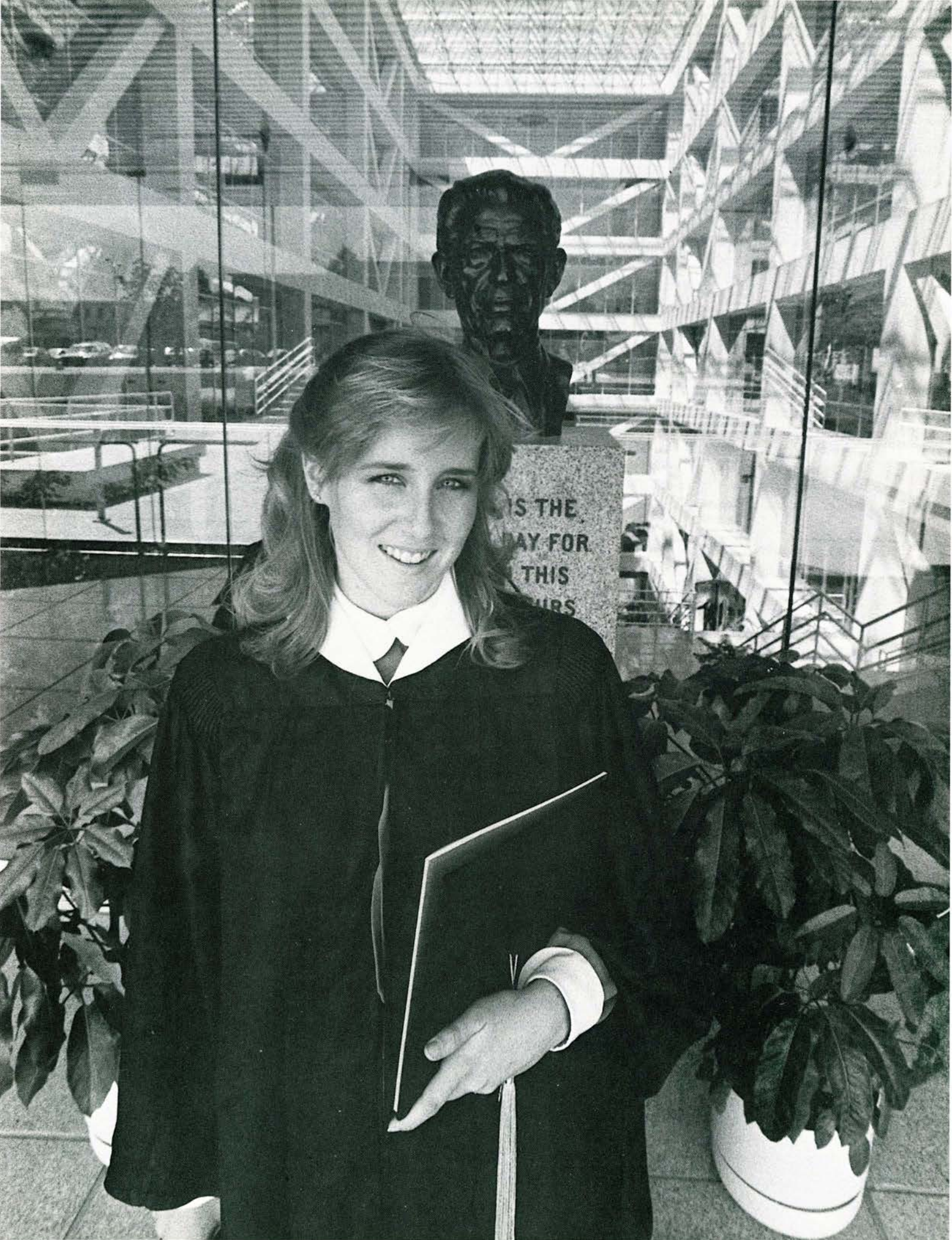
"We can just let life happen to us, or we can resiliently respond to life's episodes, and thus experience real living. If your reaction allows you to become a vital part of a situation, then at least one of the end results can always be your own satisfaction."

The third characteristic spoken of was patience. Corry encouraged listeners to hold "an attitude of being available for something else, some other position or opportunity, without being discontent with that which you are currently doing."

"Almost all of us have someone to whom we report. You should treat the person who is over you as if he or she is as smart and as wise as you are. Being critical of your boss will not benefit you or anyone else. I believe someone once said, 'Control your desires, rather than desire to control.' We must always be cautious when we have the urge to control or direct others' lives. We can be a good influence, however, on others if we show that we can control our own desires. Now here's a catchy verse:

Put up in a place
where it is easy to see
the cryptic admonishment
TFT

and when you feel how
depressingly lowly you climb,
it's well to remember that
Things Take Time



"Saving the best for last," Corry used the last few moments "to speak of those insights that have impressed me concerning service—the best of any human characteristic by far."

"I believe that the world's economic base is built on the tripod of (1) necessities, such as food, clothing, shelter, basic learning, and production; (2) enhancements, such as cultural arts and volunteerism for the emotionally and the physically handicapped and impoverished; and (3) luxuries, of which I can't think of anything to say. Our time must be full of those first two legs of life's economic tripod. For surely there are plenty of other people who will spend plenty of time shoring up that third leg.

"You've heard it said in business or government circles that you should surround yourself with good men and women if you wish to achieve and be successful. I contend that you should make good men and women out of those who surround you. Building up people in a sincere and pleasant manner should be uppermost in our actions. And as you become successful financially, and most all of you will, be sure to share it with others and to serve them with your means."

Mr. Corry closed with this admonition: "Above all, enjoy what you do. Enjoy your work, enjoy your play, enjoy your service, but don't become so addicted to your work or to your service that you don't enjoy your own life, family, and friends. Someone once said, 'If you can't find something that you enjoy doing, then for heaven's sake, enjoy that which you find to do.' Search out and make all the time that you can to do things for others—those close to you as well as those you barely know. Success is not what you are, or what you will become, but it is what you do for others. A most important person once said, 'He who is the greatest among you, shall also be your servant, and all that he has can be yours.'"



...Where Am I Going?

Dallas H. Bradford

Dallas H. Bradford, a partner in the Arthur Andersen and Company's Salt Lake City office addressed students receiving their bachelor's degrees at the College of Business convocation in April. Below are excerpts from his address.

"I have entitled my remarks tonight 'Who Am I? Where Did I Come From? Where Am I Going? and, How Am I Going to Get There?'

"To the first question that you might ask, 'Who am I?' my response is: 'you am you.' Or to be somewhat more grammatically correct, 'I am me.' Don't try to be someone you are not. In the extreme effort to achieve that each of you have been taught, some may make the unfortunate mistake of trying to be someone or something of which you are not capable. I implore you to find out who you are and to be the best that you can be, but don't put on a facade to be something or someone you are not.

"You should find out who the leaders are [in the organizations you'll work in], and learn what they do and how they do it—and you should learn from them. But you should not build your business life around a model that you cannot sustain.

"Who else are you? Many of you are members of The Church of Jesus Christ of Latter-day Saints. This is significant. It can be a great benefit to you, and I have never found it to be a detriment to me. But be not deceived. Being a member of this great Church, or being a graduate of this great institution does not and will not of itself give you a leg up on your competition. Indeed, in many respects, you have much to overcome to be on a par with your non-member colleagues. Nevertheless, even though you may have some things to overcome, do not ever compromise your high standards.

"The next question that I'd like to pose to you is, 'Where did I come from?' There are many answers to this query, but I'd like to focus on one of the more important. You came from Brigham Young University. What does that mean? You owe a

great debt to this university. You owe it allegiance. You owe it gratitude. You owe it reverence for its name and what it stands for. And you owe it much more. You also owe it money. Yes, you owe it money.

"The outstanding program and faculty that have provided so much for you cannot continue without your financial support. The Church cannot continue to provide all the needed financial support to Brigham Young University that it has in the past. You *must* help. There is no alternative.

"The next question: 'Where am I going?' That's a good question, and you ought to ask that question in soberness. My answer is that you can go just about anywhere you want to go if you are persistent and patient. Frankly, one of the most disturbing traits that I have noticed about a large number of BYU students is their impatience in their rate of progression in the companies with which they affiliate. We hear so many success stories about our graduates and their rapid rise up the ladder of success that many of us somehow believe that we are a failure if we don't achieve that same meteoric rise. I don't agree, and I hope that you do not either. Be patient. Be persistent. Be personable. And be productive. If you are, you will progress as fast and as high as you should.

"Where else are you going? I hope you're going to the four corners of this earth. When my wife and I were discussing the question of where to live after we graduated, we considered a number of areas, including our home in the Washington, D.C., area where both of our parents lived, where we grew up, and where we had many friends. It would have been easy, and comfortable, and a good life to go back to the Washington, D.C., area. However, for some strange reason, we decided on Southern California (no applause please), which was three-thousand miles away, where we knew absolutely no one, and absolutely no one knew us. All of our children were born

there, without any help from grandparents. Everything worked out well.

"I can state almost unequivocally that starting out our new life after college away from our family and in a new environment was the greatest blessing in our young lives. Sure it was tough being away from our families—particularly on special occasions and on holidays. But we grew, and we developed, and we developed a strong testimony in the Church, and we developed bonds of love and affection for friends that survive today, and will survive for many, many years.

"I encourage you students to be pioneers. Venture into the unknown. Be prepared to cut a clearing in the wilderness, and make a home for you and your little family. You will find opportunities for growth and development in the community and in the Church that you will never find available in Utah or in the Intermountain West. I hope many of you will accept the challenge to go to other parts of this great nation, to make your home there, and to make it a great success.

"Finally, let me ask the question of you: 'How are you going to get to where you are going?' The greatest and most important attribute that you students can take to your new job is that of integrity—absolute, unwavering honesty and unwillingness to wink at indiscretions in business. Your personal integrity is absolutely imperative and the greatest asset that you can take to your new employer. It alone will not make you successful, but without it you will be a failure.

"A second requirement is to develop in yourself and in your leaders uncommon courage and a willingness to sacrifice momentary credit to the bottom line of long-term enhancement to the retained earnings of mankind. I hope all of you can relate to those accounting symbolisms.

"What else must you do to get where you want to go? You must learn to communicate. Communication and everything that it represents—selling, motivating,

training, etc.—is the heartstring of business. You must learn to communicate verbally and in writing. Believe me, no matter how good a communicator you may be today, you ain't good enough. (My wife encouraged me not to use that word.)

"What is another way to get where you want to go? Please, get involved. Because of who you are, you can make a difference. Get involved in your company. Get involved in your community. Get involved in your Church and make a significant contribution in the lives of people.

"Next item: be willing to forego notoriety. Some people have such an insatiable drive to make a lot of money and to "succeed" that they lose sight of reality. Unfortunately, many of our people are trying too hard to get something for nothing. Their motives may be honorable; they want to contribute a million dollars to the School of Management, or to the football team, and in their righteous quest they make unwise investments, or get involved in deals that are questionable at best. I encourage you to avoid such tendencies and to remember the old but true adage, 'if it's too good to be true, it's too good to be true.' That's not exactly how it went, but I like my way better.

"The last item relates to those of you who will be entering one of the professions. The standing of many professions in our society is slipping fast. We must resurrect the high standing in which professions were once held. As professionals, we have a deep responsibility and obligation to the public and to the clients who we serve. The chairman of my firm, Duane Kohlberg, recently made a statement that I think is profound, and I would like to encourage those of you who are entering one of the professional disciplines to remember it: 'The purpose of a business should be to make a profit, and incidentally render a service. The purpose of a profession should be to render a service, and incidentally make a profit.' The difference is subtle, but vital." ■



In June of 1983, then Governor Scott Matheson called upon an assistant professor from BYU's School of Management to accept a challenging assignment. The Utah State Tax Commission had come under fire following a critical audit from the state auditor, and Governor Matheson decided it was time to change direction at the commission. Dr. Gary C. Cornia was invited to accept a three-year appointment as one of four commissioners who oversee a staff of 650 people responsible for collecting and remitting to the state treasury about \$1.5 billion a year.

Before accepting this position, Cornia faced a dilemma. He had earned his Ph.D. in public finance at Ohio State University in 1979 and, after teaching at the University of North Carolina at Charlotte and BYU, he was becoming comfortable with his role as a successful university professor. He, his wife Laurel, and their five children were getting along fine, thank you, living in Orem. And the daily trek to Salt Lake City didn't excite him much. Besides, the college's Institute of Public Management and Health Administration needed Gary. He was popular with students and his colleagues alike. He had won the Exxon teaching excellence award. He was becoming nationally recognized as an expert on public budgeting and state and local finance. So the choice was not easy.

But one of Cornia's personality characteristics tipped the scales in favor of the new offer: Gary has a passion for doing things right. He wants to be the best in his professional field. And to do so, he's aware that there is no substitute for "real world" experience on the firing line. He just didn't feel that he could continue to teach—continue to grow professionally—without having "been there." Other colleagues in the Institute of Public Management and Health Administration, including Lennis Knighton and N. Dale Wright, had earlier taken leaves like the one offered to Cornia to enhance their research and teaching effectiveness. In fact, the School of Management's professional leave program encourages

Gary C. Cornia

Utah State Tax Commissioner

faculty to take advantage of just such opportunities. So a leave was granted and Gary Cornia signed on with the tax commission with the understanding that he would stay for two years and then return to BYU.

Cornia joined a newly revamped tax commission chaired by Mark Buchi, who had been the lead attorney for tax issues in the attorney general's office. The other commissioners were G. Ellsworth Brunson, a former partner at Peat, Marwick, & Mitchell in Salt Lake who later started his own accounting firm, Brunson, Pickett and Tanner (Brunson was also president of the Utah Association of CPAs); and Marthe Dyer who had been the state planning coordinator for Governor Matheson.

Now, two years later, when asked how he felt about the appointment, Cornia says, "I was naive—I thought it was going to be much easier." But what he really found was a series of difficult tasks, dealing with myriad constituencies and innumerable tough issues. "Few people are excited about paying taxes. Each group or interest will exert as much force as possible to minimize its tax burden. Yet the machinery of government must be fed with dollars. The tax commission seeks to enforce taxation legislation fairly and equitably."

During Cornia's tenure, the commission has been involved in some controversial issues. Citing an example, Gary speaks of the "unitary tax"—a system that allows a state to go beyond its borders to essentially unitize the company and tax the income of that company in relation

to the total number of employees, sales, or assets within the state. Under such a system, national and even international corporations become Utah taxpayers, "but not without considerable resistance."

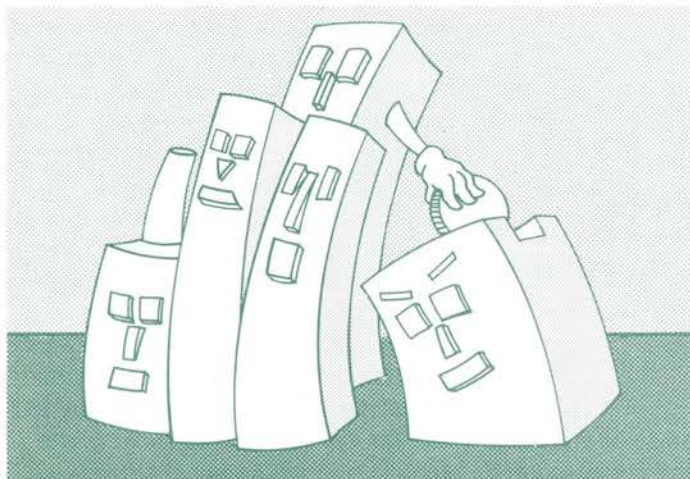
The commission also has an enforcement function—dealing with those who would illegally avoid paying taxes. It also serves to adjudicate property tax matters through a two-level appeals process. People who challenge the valuation of their property come to the tax commission for review, the first step in what may eventually go to the Utah State Supreme Court.

Dr. Cornia has been well trained for his chosen profession. Raised in Woodruff, Utah, he earned his bachelor's degree at Weber State College and went on for a master's at Utah State University. His doctoral work at Ohio State University was followed by work as public finance research associate at the Academy for Contemporary Problems, a public affairs think tank in Columbus. Still in his thirties, Gary Cornia has covered a lot of ground and has emerged as an exceptional scholar.

So, what's next for Cornia? Later this year he will return to full-time teaching and research at the School of Management. And he'll return with, as he says, "enough war stories to keep my students entertained for months." But more importantly, he will have had a rich experience. Says Cornia, "My leave experience will be beneficial to me as a faculty member and to my students in a number of ways. I will return with a lot of ideas I'll want to flesh out for publication and inclusion in my teaching in areas of public policy and management issues. Through this professional development leave, I have gained a much greater understanding of the complex issues surrounding tax management and tax compliance."

BYU students are in for a treat when Gary returns to teaching both at the Provo campus and in the Salt Lake Center master's program. His legendary sense of humor and his ever-increasing expertise in public finance make him a true asset to the School of Management. ■

B R I E F L Y



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Accounting Program Nationally Ranked

Periodically the *Public Accounting Report* surveys accounting department chairpersons at universities throughout the nation to determine the best academic programs. Rankings reported in December 1984 once again reflected favorably on BYU: We were ranked No. 6 nationally.

Respondents to the PAR survey considered such things as class size, quality of faculty, success of program graduates, and the balance between research and practical emphasis in the curricula. The top ten schools identified were: (1) Illinois, (2) Texas, (3) Michigan, (4) Southern Cal, (5) Ohio State, (6) Brigham Young, (7) Notre Dame, (8) Wisconsin, (9) Missouri, and (10) Michigan State.

New Scholarships Announced

During the past year, two chapters of the Management Society have initiated student

scholarships. The Southern California chapter of the Management Society now awards two scholarships per year to students from Southern California (from Santa Barbara south). These carry a stipend of \$2,500 each.

The Denver chapter initiated its scholarship during the 1984-85 school year, providing help for a student from the metropolitan Denver area. This brings to four the number of Management Society scholarships. The Arizona chapter is continuing to sponsor the Gerald L. Romney Memorial Scholarship, now in its third year.

Other new scholarships include the Merrill and Edythe Dame Scholarship, which was endowed by a gift from Woodgrain Moulding. The scholarship honors the parents of the donor, Reed Dame.

The LaVorn and Beatrice Sparks Scholarship will be given for the first time during the 1985-86 school year. The endowment for this scholarship came from funds received when several antique autos, which were donated to the university by Sparks, were sold.

The Utah Mortgage Bankers Association is now providing \$1,000 per year to a Utah student in need of financial aid who is majoring in a business discipline. This scholarship will become effective in the fall of 1985.

D.C. Management Society Seminar

Over 800 persons participated in the fall seminar of the Washington, D.C., area chapter of the BYU Management Society. The subject of the seminar was, "Celebrating the Bicentennial of the U.S. Constitution."

Dr. Mark W. Cannon, chairman-designate of the National Advisory Council, organized the event and made a major presentation. Other speakers were Rex E. Lee, U.S. solicitor

general and founding dean of the BYU Law School, and Senator Orrin G. Hatch of Utah, chairman of the Senate Labor and Human Resources Committee. Florian Thayne, of the Office of the Architect of the Capital and Management Society Advisory Committee member, was master of ceremonies.

Dr. Rex Lee described how the Constitution protects individuals against the abuses of concentrated government power through a system of competition for power (three branches of government and a system of federal and state governments), expressed limitations, and prohibitions to governmental authority through the Bill of Rights.

Orrin Hatch, chairman of the Senate Subcommittee on the Constitution, spoke of the stability of the Constitution, the difficulty in amending it, and the importance of a virtuous body of citizens to a constitutional government and the importance of religious belief in engendering that civic virtue.

Mark Cannon quoted Jefferson on the Constitution being "something new under the sun" and described the roots of the Constitution in the dissatisfaction with alternative forms of government; experience with self-government in the colonies; fears of tyranny and anarchy; the leadership and scholarship of the founding fathers; and accepted concepts of rule by law, consent of the governed, division of powers, and due process.

Howard E. Wall opened the meeting as new co-president of the chapter and recognized Beverly Campbell, co-president of the chapter, and members of the Chapter Advisory Council. Betty Schomann, chapter secretary, made the extensive arrangements for the meeting, which was held in the Washington, D.C., Stake Center. The meeting was also used as a kick-off for the chapter's membership drive. ■

D O N O R S

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 Bonnie G McKinlay, *San Jose, CA*
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 Gary F McKinnon, *Provo, UT*
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 J Randy McKnight, *Nephi, UT*
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 D A Miller, *Cypress, TX*
 Kerry L Miller, *Sanger, CA*
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 David M Orton, *Bangkok, Thailand*
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E D Robison, *Provo, UT*
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Richard C Smith, *Harrisburg, OR*
Robert T Smith, *Provo, UT*
Ryan B Smith, *Atlanta, GA*
Terrell J Smith, *Boise, ID*
Terry A Smith, *Long Beach, CA*
Travis J Smith, *Sacramento, CA*
Vance W Smith, *Long Beach, CA*
Jay M Smith, Jr., *Mapleton, UT*
Bruce R Snow, *Memphis, TN*
Karl N Snow, *Provo, UT*
Kathy A Snyder, *Provo, UT*
Emory, O Sonderegger, *Provo, UT*
William B Sonne, *Plymouth, MI*
Bryan M Sorensen, *Rochester, NY*
Brice K Sorenson, *Salt Lake City, UT*
Paul A Sowards, *Jackson, MI*
Dennis P Spackman, *Midvale, UT*
Randall P Spackman, *Irvine, CA*
Terrell H Spackman, *Pingree, ID*
Mark D Spear, *Spokane, WA*
Steven C Spencer, *San Angelo, TX*
Joe D Squire, *Orem, UT*
Donald L Staheli, *New Canaan, CT*
A F Stanford, *Hinton, AB, Canada*
Ralph C Stanford, *Placentia, CA*
Davis R Stanger, *Portland, OR*
Brian L Stapleton, *Logan, UT*
Michael A Stein, *Potomac, MD*
Kent H Stephens, *Visalia, CA*
Robert E Stephens, *WEESP, The Netherlands*
Bruce W Stephenson, *Poway, CA*
Henry R Stephenson, *Pocatello, ID*
John W Sterling, *Walnut Creek, CA*
Dan E Steurer, *Mannford, OK*
Bradley J Stevens, *Denver, CO*
Jay Stevens, *Provo, UT*
Christian Stevenson, *Orem, UT*
Robert T Stevenson, *Las Vegas, NV*
Dave N Stewart, *Provo, UT*
James D Stewart, *Overland Park, KS*
Kathleen M Stimpson, *Orem, UT*
John T Stimson, *North Las Vegas, NV*
Terry Stimson, *Novi, MI*
Alene Stirling, *Los Angeles, CA*
Phyllis Stirling, *Los Angeles, CA*
Michael V Stoddard, *Richardson, TX*
Stanford C Stoddard, *Birmingham, MI*
Ted D Stoddard, *Provo, UT*
Donald W Stoker, *Phoenix, AZ*
Sterling J Strate, *El Paso, TX*
Ronald A Stratton, *Plano, TX*
Stanley R Strebel, *Coalville, UT*
G F Streuling, *Orem, UT*
Roland Stucki, *Salt Lake City, UT*
Mark R Sturgis, *Metbuen, MA*
Noel C Sullivan, *Richardson, TX*
Mervyn F Swan, *Calgary, AB, Canada*
Dennis M Swenson, *Littleton, CO*
William O Swinyard, *Salt Lake City, UT*
Siegfried Szoke, *Salt Lake City, UT*
Joyce S Tate, *Orem, UT*
Terry Taye, *Salt Lake City, UT*
Dale H Taylor, *Provo, UT*
John A Taylor, *Cincinnati, OH*
Karen L Taylor, *Carlisle, MA*
Stephen B Taylor, *Fair Oaks, CA*
Donald M Terry, *APO New York, NY*
Randy H Tesch, *Sandy, UT*
Chris E Tew, *Aloha, OR*
Steve H Thacker, *Snowflake, AZ*
Charles G Thompson, *Ogden, UT*
Hollis M Thompson, *Springfield, VA*
Michael A Thompson, *Humble, TX*
Paul H Thompson, *Provo, UT*
Russ Thornock, *Gilbert, AZ*
Fred E Thornton, *Murray, UT*
James R Thorpe, *Carson City, NV*
Kimball D Thurston, *Memphis, TN*
Bert E Tidwell, *Panorama City, CA*
Paul R Timm, *Orem, UT*
William M Timmins, *Salt Lake City, UT*
James L Titmus, *Boise, ID*
Karl R Tobler, *Redmond, WA*
Bruce H Todd, *Roosevelt, UT*
Paul G Toner, *Rochester, NY*
Paul W Tucker, *Seattle, WA*
Russell E Tueller, *Sandy, UT*
John N Turley, *San Angelo, TX*
Michael S Turner, *Mesa, AZ*
Scott R Turner, *Salem, OR*
David O Ulrich, *Ann Arbor, MI*
John B Updike, *Mesa, AZ*
Patricia Ursenbach, *Sunnyvale, CA*
Don Van Slooten, *Glendale, CA*
Robert B Vance, *Las Vegas, NV*
Jack K Vandermark
Edward, F Vanduzer, *Brockport, NY*
Deborah G Vanleeuwen, *Las Vegas, NV*
Dane R VanPelt, *West Jordan, UT*
Fredric R Vanwert, *Sunnyvale, CA*
Robert C Veals, *Lawrenceville, GA*
G Roger and Marilyn Victor, *Bellevue, WA*
Wayne L Voorheis, *West Valley City, UT*
L B Vorwaller, *Jacksonville, FL*
Chester L Waggener, *Provo, UT*
John Wagner, *Walnut Creek, CA*
Edward H Wahtera, *Houston, TX*
Wilson L Walch, *Provo, UT*
Stewart R Walkenhorst, *Napa, CA*
Glenn P Walker, *Tacoma, WA*
Leslie N Walker, *Loveland, CO*
William J Walker, *Ely, NV*
Howard E Wall, *McLean, VA*
Ralph D Wall, *Green River, WY*
Val J Walters, *Brea, CA*
Ralph L Waltman, *St. Petersburg, FL*
Lane D Ward, *Orem, UT*
Michael D Wardle, *Kaysville, UT*
Bruce E Warner, *Sandy, UT*
Paul E Warnick, *Walnut Creek, CA*
Robert S Warnick, *El Toro, CA*
W P Warnock, *Salt Lake City, UT*
Berk W Washburn, *Dayton, OH*
David K Watanabe, *Glendora, CA*
Max L Waters, *Provo, UT*
Kent D Watson, *Salt Lake City, UT*
Donald A Watts, *Centerville, UT*
Dennis J Webber, *Salt Lake City, UT*
Carl P Webster, *Bountiful, UT*
Kenneth F Weihs, *Chesterfield, MO*
Dolores M Weller, *Reno, NV*
Thomas and Dorothy Wellford, *Memphis, TN*
Mark T Werner, *Provo, UT*
Emerson R West, *San Jose, CA*
Joseph A West, *Rexburg, ID*
Neal M West, *Marysville, WA*
Robert G West, *Chesterfield, MO*
T B Westerberg, *New York, NY*
Jack R Wheatley, *Palo Alto, CA*
Gloria E Wheeler, *Provo, UT*
John D Whisenant, *SLC, UT*
J M White, *Provo, UT*
Michael A White, *Sacramento, CA*
Reeves C White, *Laguna Niguel, CA*
Steven V White, *Moraga, CA*
James B Whitehead, *Salt Lake City, UT*
Nina E Whitehead, *Lindon, UT*
James B Whitehead, Jr., *Salt Lake City, UT*
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Joseph E Wier, *Waterloo, IA*
Dale R Wight, *Troy, MI*
Calvin C Wilcox, *Bellflower, CA*
Jeffery Wilde, *Provo, UT*
R K Wilde, *Green River, WY*
Bruce W Wilhelmsen, *Ontario, OR*
Merilee H Will, *Vancouver, WA*
Ray V Willardson, *San Diego, CA*
Patricia Wille, *Salt Lake City, UT*
Dave W Williams, *Orem, UT*
James M Williams, *San Jose, CA*
J R Willis, *Mesa, AZ*
Brent D Wilson, *Provo, UT*
D G Wilson, *Gresham, OR*
Dan J Wilson, *Aurora, CO*
Dean G Wilson, *Dallas, TX*
Dennis A Wilson, *Sandy, UT*
E B Wilson, *Plymouth, MN*
Gordon D Wilson
James M Wilson, *Cedar City, UT*
Joseph H Wilson, *Sacramento, CA*
Louise B Wilson, *Boise, ID*
Paul W Wilson, *Plymouth, MN*
Jane L Winegar, *Provo, UT*
Bill D Wirthlin, *Salt Lake City, UT*
Steven A Witt, *Houston, TX*
Paul D Woehlke, *Lake Park, FL*
David M Woffinden, *Covina, CA*
Fred D Wolf, *El Cerrito, CA*
Curt R Woller, *Lake Oswego, OR*
H Steven Wood, *Basking Ridge, NJ*
Leon W Woodfield, *Springville, UT*
Serge B Woodruff, *La Crescenta, CA*
Robert M Woodward, *Escondido, CA*
Warner P Woodworth, *Provo, UT*
Frederick Woolf, *Concord, CA*
Ronald G Worsham, *Provo, UT*
Christi Worsley
Dawn R Wride, *Westlake, OH*
James S Wright, *Denver, CO*
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N D Wright, *Orem, UT*
Steven W Wright, *Provo, UT*
William R Wright, *Yakima, WA*
Leland H Wurtz, *Long Beach, CA*
Arthur R Wyatt, *Chicago, IL*
Thomas T Yamakawa, *New York, NY*
George M Yeiter, *Pasadena, TX*
Stuart York, *Fair Oaks, CA*
Mark F Zimbelman, *Provo, UT*
Karen B Zobell, *Orem, UT*
Joseph P Zollinger, *Canoga Park, CA*

B R I E F L Y

Working Papers Series Available

The School of Management is now making available to readers copies of faculty working papers. These papers, described below, reflect some of the research continuing within the school. If you would like a copy of a paper, please contact the Dean's Office, 730 TNRB, BYU, Provo, UT 84602. Please enclose \$2 for each paper requested to offset copying and postage costs.

WP #1 Radebaugh, Lee H. and Janice C. Shields, "A Note on Foreign Language Training and International Business Education in U.S. Colleges and Universities"

Recent studies have concluded that the foreign language fluency of the general population of the United States is very low. The purpose of this study is to identify language requirements for business students in U.S. colleges and universities that offer a major, minor, or co-major in international business and to determine approximate levels of fluency in foreign languages of these students.

WP #2 Rinne, Heikki J., Stewart W. Bither, and Michael D. Henry, "The Effect of Price Deals on Retail Store Performance"

The authors report a study conducted in Finland of 1,084 loss leader promotions in three stores over a 16-month period, investigating the relationship between retail promotions, store sales, store traffic, and overall store profitability. The promotions are found to be effective in increasing store sales and traffic. However, the profit impact was not necessarily positive. Overall, decreases in short-term profits associated with retail promotions were found to be as common as increases.

WP #3 Rinne, Heikki, "A Model for Evaluating the Pro-

fitability of Retail Promotions"

Retail managers generally evaluate promotional effectiveness by sales volume rather than profitability. This paper presents a computer model which forecasts sales resulting from a planned promotion. In calculating the ultimate promotional profit impact, the model accounts for four key phenomena: increases in store traffic, "cherry picking," product substitution, and deals as additional purchases. The model also accounts for complementary purchases (due to deals) in computing the net profitability of retail deals.

WP #14 Timmins, William M., "Civil Service Reform and the Changing Role of Civil Service Commissioners"

This paper suggests some critical areas of needed reform in state and local government personnel systems and makes specific recommendations.

WP #15 Timmins, William M., "Improving Your Winning Percentage in Arbitration Hearings"

A series of "do's and don'ts" for those preparing a case for presentation to an arbitrator, particularly in labor disputes. A number of very concrete suggestions are made by an experienced labor arbitrator and hearing officer.

WP #16 Timmins, William M., "Treating Government Executives like Business Executives: The CSRA Experience"

The Federal government since 1978 has radically changed its treatment of top executives. This article looks at incumbents and how they viewed this change and reports on some preliminary survey findings.

WP #17 Hansen, James V. and William C. Giauque, "Task Allocation in Distributed Processing Systems"

Distributed processing in computer networks is a power-

ful development emanating from technological advances in computer science and communications research. An important and unresolved problem in distributed processing is how to optimally allocate tasks among the interconnected processors. This paper reports a dynamic programming algorithm which incorporates many of the essential problem elements.

WP #19 Hansen, James V. and William F. Messier, Jr., "A Relational Approach to Monitoring Controls"

The integration and coupling which result from networking, data base systems, and real time applications are serving to increase concern about security and control in modern computing environments. The establishment and effective monitoring of controls in such settings are essential to guarantee data integrity and to prevent undesired intrusion.

This paper proposes that the monitoring of system controls is essentially an information processing activity, and that the relational model is a useful formalization of information gathered from central monitoring. Moreover, the universal data view facilitates auditor analysis without imposing the requirement that he or she have explicit knowledge of the structure of the relational data base of monitored information.

WP #20 Hansen, James V. and William F. Messier, Jr., "A Knowledge-Based Expert System for Auditing Advanced Computer Systems"

The complexity of modern computer auditing requires an effective decision support system that should (1) be highly flexible, (2) have the capability for incorporating important qualitative components, (3) be able to utilize a network of decision rules in describing a complex system

of internal controls, and (4) be able to converse with the auditor in a meaningful way. The system should help the auditor recall and evaluate evidence about a client's computer system in order to reach well-founded conclusions about the system's reliability.

This paper introduces the concept of utilizing an "expert system" as a decision support tool for the computer audit specialist. A prototype expert system based on existing technology is illustrated.

WP #23 Hansen, James V., "On the Translation of Entity-Relationship Models to Relational Data Base Schemes"

Data models have been proposed and utilized as a means of communicating and unifying logical views of data. Such tools can be useful in aiding data base design. The entity-relationship model is the best known and most widely accepted of these data models.

Proponents of the entity-relationship approach have argued that the resulting models are in the appropriate normal form for realization in relational data bases. This paper suggests that developments in relational design methods require the application of these methods to entity-relationship models, themselves.

WP #24 Kelly, J. Patrick and Michael D. Geurts, "Increasing the Efficiency of Forecasting Seasonal Demand for Individual Products"

WP #25 Ouchi, William G. and Alan L. Wilkins, "Organizational Culture"

WP #26 Thompson, Paul, Kate Kirkham, and Joanne Dixon, "Warning: The Fast Track May Be Hazardous to Organizational Health"

WP #27 Thompson, Paul, Reba Keele, and Vivian E. Couch, "What Managers Learn from Their Subordinates" ■

FINANCIAL MODELING

COMPUTERS AID FORECASTING ART

Brent D. Wilson

Forecasting—whether it is estimating the effect of marketing plans, predicting the cost savings from introducing new production methods, or estimating future cash needs—has long been recognized as an art rather than a science. While sophisticated statistical and mathematical techniques have been developed to aid in forecasting, these procedures assist managers in dealing with uncertainty; they

do not eliminate it.

Financial modeling, an advanced technique for coping with uncertainty, offers considerable advantages to managers.

Modeling consists of determining which variables affect the outcome of a situation and defining the relationships among these variables in mathematical terms. If properly used, the modeling process will assist

managers in making better-informed decisions.

Modeling and “What If” Analysis

One reason for the usefulness of modeling is that the technique provides a means for managers to examine the effects of a wide range of variables





through sensitivity analysis, more descriptively called "what if" analysis. Using this approach, managers can develop alternate forecasts by manipulating the model's variable values. By evaluating the sensitivity of the results to these changes, managers are able to examine the riskiness of various projections. In addition, they are able to determine which variables most affect results and therefore warrant the greatest scrutiny. (I'll talk more about sensitivity analysis later.)

Despite the value of this approach, it has typically been used only to evaluate plans or projects which would have major impact on a company. The primary reason for restricting its use has been the cost of developing the projections and the recalculations needed for the sensitivity analysis.

Before the development of computers, the necessity of hand calculations obviously limited the practicality of sensitivity analysis. Even using computers, it was usually necessary to develop a specific computer program for each model. This meant that the manager needed to explain the project to a systems analyst or programmer, wait for the program to be written, and then—working with the programmer or analyst—evaluate the results.

In recent years, however, using the computer to perform calculations for sensitivity analysis has been greatly facilitated through the development of "modeling languages." These computer languages are specialized computer programs that simplify the creation of forecasting models. After a manager has specified the relationships among variables in a model, the computer then goes through the laborious process of performing the calculations. The languages are "user friendly" to allow their use by managers—not requiring computer programming skills. These modeling languages allow managers to do what they do best—*think*—and allow computers to do what they do best—*calculate*.

Originally, modeling languages were developed to run on mainframe systems. With the recent development of microcomputers, however,

there has been a proliferation of such programs created for use on these devices. The best-known programs are generically called electronic spreadsheets (because of their similarity to the spreadsheets used in manual projections). In addition, mainframe modeling languages have been adapted to the microcomputer environment. The combination of these spreadsheet and modeling programs has made computer-based modeling available to all levels of management.

The Modeling Process

Regardless of the approach used, either a spreadsheet or modeling language, the general process of developing a model is similar. The procedure can be summarized in the following six steps.

Determine the Objectives

Before starting to create a model, it is important to understand what information the model is expected to provide. In other words, what is the purpose of the model? The answer to this question defines objectives and detail limits for the model.

Although this step seems obvious, too many projects start with only the decision to "build a model." Such a general approach is unlikely to provide useful results.

Specify Variables and Data Detail Levels

After deciding what the model is supposed to do, determine which factors must be included. The number of variables and detail limits of the data is dependent on the model's objectives. For example, if the objective is to provide information about required inventory levels, the model will require detailed forecasts about expected orders, delivery times, production capacities, throughput times, etc. On the other hand, a pro forma financial statement model might require only a few general income, expense, and balance-sheet accounts.

The model's horizon also affects the level of data detail required. Monthly cash account projections for the next year would require more detail for the relevant variables than would an annual cash account projection for a



The modeling process will assist managers in making better-informed decisions.

five-year model.

In general, match the detail of the input with the required detail of the output. If the objective is to provide detailed results, then the model should include all variables stated as specifically and in as much detail as possible. If the objectives are broad and general, then the model's variables can be accordingly more general and less detailed.

Define Relationships

Relationships among the model's relevant variables are stated in mathematical terms. For example, if maintenance expense for a particular machine is expected to be \$100 for each 500 hours of operation, the relationship could be expressed as:
$$\text{Maintenance Expense} = \$100 * (\text{Operating Hours} / 500).$$

In determining what the relationships are, most managers start with historical information. If historically a company's cost of goods sold has been 85 percent of sales revenue, this would be a good starting relationship for the model. There may, however, be relationships that are expected to differ from historical patterns, or the model may contain relationships with which the company has not had previous experience. In these cases, the manager must rely on expectations for the model's specifications. In any case, the relationships could, and should, be altered and the results examined using sensitivity analysis.

Construct the Model

The defined relationships are combined to form the model. Specific procedures for combining these mathematical statements depend on the modeling system being used. Some systems are almost "free form," with no particular order required. Other systems require that the statements be placed in a specific order. Check the system instruction manual for procedural details.

Validate the Model

Test the model to ensure that it is working correctly. Mistakes do occur! There is no failure in making mistakes; failure comes from neglecting

to find and correct them. Too often managers accept modeling results without verifying output accuracy. This can lead to disastrous results.¹

In examining the model, unusual results are an immediate clue that a mistake may have been made. Other than this obvious method, the only reliable way to ensure that the model is providing reliable results is to manually work through each step in the model to verify its accuracy.

Manual verification of complicated models can be facilitated by separating the model into simpler pieces, then validating each piece. The re-assembled, tested model can be used with confidence.

Document the Model

Unfortunately, most modelers stop once the model has been constructed and tested. The problem with ending at this stage is that few, if any, models are "self explanatory." The explanation of what the model is doing and the nature of the relationships used in the model are not critical when the model is used immediately by the manager. The problem occurs when others use it or when the manager returns to it after a lapse in time. There may be subsequent questions about how the model was constructed or what it does. For this reason, it is important to provide documentation explaining the variables and relationships used, critical assumptions, and other relevant factors.

When documenting, the model can be clarified by using understandable variable names whenever possible. SALES IN YEAR 1 or SALES1 is more understandable than B3. Most spreadsheet programs allow the assigning of names to ranges or blocks of variables. Most modeling systems allow such naming of ranges or blocks of variables as well as the inclusion of comments. The use of these features provides a type of self-documentation for the model.

More on Sensitivity Analysis

The process of planning, constructing, and testing a model is a labor-intensive and often time-consuming task. However, since the



**The model
cannot replace
good managerial
judgement.**

relationships between variables are rarely known with certainty, the ability to change the relationships and observe the results is an important managerial tool. Indeed, the more uncertainty surrounding any relationships, the greater the need for detailed analysis.

Sensitivity analysis is often called "what if" analysis because it allows the manager to ask the question, "what if the value of the relationships or variables were changed?" Since the computer can quickly recompute the model following changes in any of the variables (often in seconds), it is simple to vary any of the relationships.

This ease of recalculating the model with changed assumptions has its dangers, however. One danger is the problem of becoming overwhelmed with numbers. When the calculations were laboriously done by hand, managers only made the changes that were believed to be realistic and possible. Changing variables over unrealistic ranges may result in more data than the manager can possibly use, leading to "analysis paralysis." The model cannot replace good managerial judgement.

Modeling and "What-Would-It-Take" Analysis

In addition to sensitivity analysis, a manager may also wish to determine what the relationship between certain variables would need to be to achieve a specific result—a "what-would-it-take" analysis. For example, the manager could determine to what extent sales expenses would need to be altered to achieve a certain net profit-margin level. This process is called optimization or goal seeking.

Some modeling systems are designed to easily perform this optimization or goal-seeking analysis. Even on less sophisticated systems it is possible to do the analysis through a trial-and-error process of changing the value of one variable and observing the results on the goal or target variable. This process can be repeated until the target or optimum results are achieved.

Modeling and Scenario Analysis

Another use for a model is to develop

various sets of relationships based on different scenarios. The manager determines possible future events or combinations of events and runs the model using the appropriate relationships for each of these scenarios.² For example, in modeling a new product introduction the manager may develop scenarios for possible competitive reactions, different economic environments, and alternative marketing strategies.

Some modeling systems also allow including a range of values for the relationship with a probability distribution for the values in the range. The modeling system would randomly select one value from the range, calculate the results of the model using that value, select another value, calculate the results, and so forth for a specified number of iterations. This approach, known as Monte Carlo simulation, provides the manager with a distribution of outcomes instead of a specific or "point estimate" of the results.³ Monte Carlo simulation provides useful information about the range of possible results and therefore the riskiness of the outcomes.

Summary

Modeling provides the manager with useful information to aid in decision making. The advantage of a modeling system is that the manager can examine the results of various alternatives and test the effects of changing relationships before having to implement a decision.

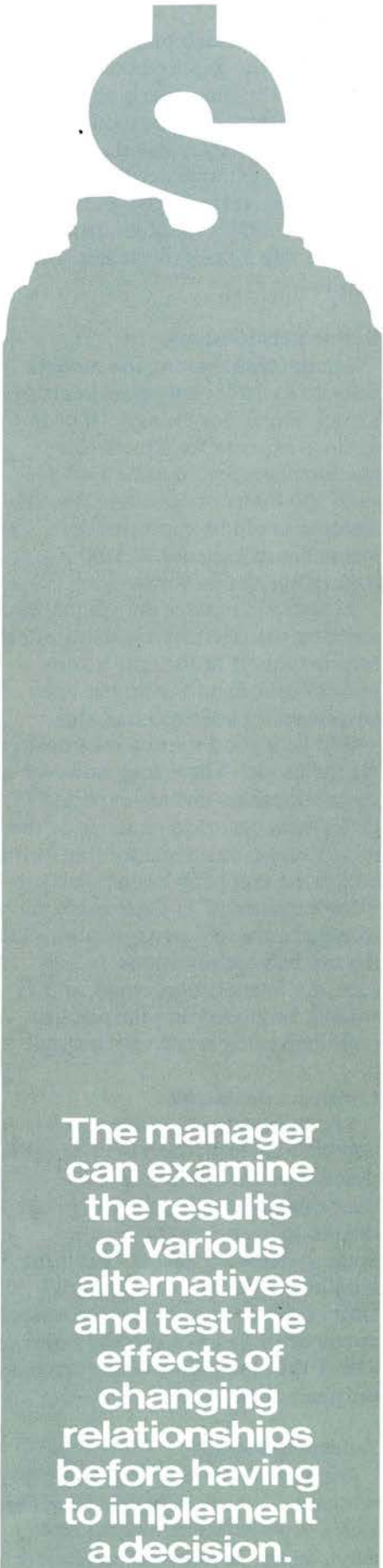
The power of the modeling approach is now available to all managers with the development of microcomputers and modeling software systems that run on these devices. The proper use of financial models will facilitate better managerial decisions. ■

Notes

¹See "How Personal Computers Can Trip Up Executives," *Business Week*, September 24, 1984, pp. 94-102.

²See Robert E. Linneman and John D. Kennell, "Shirt-sleeve Approach to Long-range Plans," *Harvard Business Review*, March-April, 1977, pp. 141-150.

³See David B. Hertz, "Risk Analysis in Capital Investment," *Harvard Business Review*, September-October, 1979, pp. 169-181.



The manager can examine the results of various alternatives and test the effects of changing relationships before having to implement a decision.



The Silver Student Investment Fund

Set to Sail

Using \$100,000 of real money, a team of ten second-year MBA students embarked on the maiden voyage of the Silver Student Investment Fund in September 1984. Their opportunity: a journey of professional growth seldom available to students.

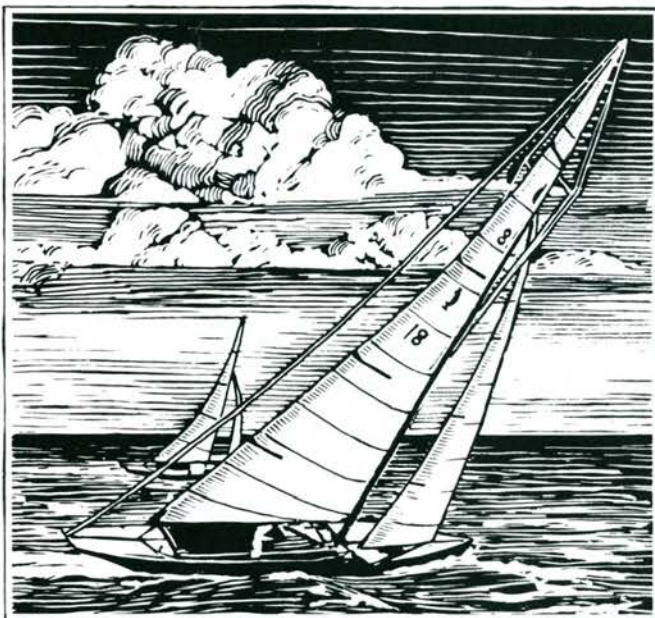
On March 28, 1985, they reported the results of their seven-month odyssey

to an audience of about 50 people including Mrs. Ruth Silver. Mrs. Silver and her late husband, Denver industrialist and inventor Harold F. Silver, provided the funds for this experience as part of a major gift to the BYU School of Management.

Following the report, Mrs. Silver said, "I think Harold would be just

delighted to see this. . . It's nice to see young people who are excited about what they are doing and feeling and that they have had a valuable experience that prepares them for the real world, where they will face many of the same decisions."

What follows is the team's report to the fund.



Strategy

Our initial objective was to determine a portfolio mix that would outperform the market return on the Standard and Poor's 500. Strategy formulation involved a detailed analysis of current economic conditions together with a prediction of economic trends for the coming year.

Our October 1984 initial analysis suggested stable or declining interest rates in the short-run (up to six months), inflation at roughly 5 percent, and moderate growth in GNP of around 3 percent. The analysis of leading, concurrent, and lagging economic indicators suggested that we were still on the up-side of the business cycle. We believed that the Federal Reserve would relax its credit policies somewhat, and that the resultant economic growth would more than compensate for slightly increased inflation. We were concerned, however, that interest rates would rise in early 1985. Accordingly, we chose a relatively conservative target portfolio-mix of 65% stocks, 20% bonds, and 15% money market funds.

Our strategy was modified as the fall semester progressed. For example, as interest rates dipped more sharply than we originally predicted, and the market was slightly more bullish than we anticipated, we modified the portfolio mix to meet our changing expectations of market direction. While we contemplated increasing the weight of stocks in our portfolio-mix, we remained very concerned about the national deficit and its impact on interest rates. This concern led to the purchase of utility stocks as our emphasis changed from growth to income stocks.

An important part of our strategy was the composition of the securities held in the fund. On November 30, the composition of the fund was 48% stocks, 7% bonds, and 45% money market funds. As of February 22, the composition was 74% stocks, 7% bonds, and 19% money market funds. As of March 15, the composi-

In 1982, Mrs. and Mrs. Harold Silver of Denver, Colorado, gave an endowment to the School of Management for the study of finance and investments. During the later years in Mr. Silver's career as an inventor, he studied the stock market extensively and developed his own system for analyzing firms with investment potential. With his gift to the university, he wanted to encourage the study of finance and investments and make additional opportunities available to both students and faculty. As a result of this gift, part of the endowment was segregated into a separate fund that could be managed by students to give them some actual experience in investment analysis and decision-making. This fund was named the Silver Student Investment Fund in honor of Mr. and Mrs. Silver.

The first students to be involved with managing the student investment fund were chosen in September 1984. Preference was given to students with serious career interests in investments. The ten students were all MBA candidates in their second year of the program. A description of the students' philosophy and performance, together with an explanation of important events and lessons learned comprise this report.

Philosophy

The purpose of the Silver Student Investment Fund is to provide students who have serious career

interests in investments the opportunity to make substantial business decisions in a professional atmosphere. Faculty advisors clarify that the fund is to be more than a one-time "learning experience." It is vital to preserve the fund's principal so that the experience can be an ongoing opportunity for students. More than anything else, the additional pressure of investing real dollars contributed to the atmosphere of professionalism within the group.

From the beginning, we tried to base our investment decisions on fundamental analysis. We examined economic trends, researched various industry groupings, and then selected our portfolio. Emphasis was given to long-run investments, and speculative securities were discouraged. At the outset, our team decided to purchase only those securities listed in the *Wall Street Journal*. This would ensure that future teams would have no problem examining and trading securities currently in the portfolio. In order to ensure that speculative securities were not purchased, team members elected to ignore those stocks with price-earnings ratios above fifteen. Since the group was given a great deal of autonomy, a set of bylaws was developed to police member actions during the school year. Additionally, a president and a secretary were elected, and two market traders were appointed.

tion was relatively unchanged.

Analysis of Risk-Adjusted Returns

Because the returns of any given investment strategy depend a great deal on the risk involved in that strategy, the evaluation of a portfolio's performance against the market or against that of other managed portfolios must be done on a risk-adjusted basis. There are three methods which might be used to adjust for risk, one developed by William F. Sharpe, another by Jack L. Treynor, and a third by Michael Jensen. Using these ratios, the investment returns of the Silver Fund were evaluated against the performance of the S&P 500 on the basis of returns over the seven-month period. These are given in the adjacent table.

Three Methods to Adjust for Risk

Sharp Ratio:

$$\frac{R_p - R_f}{\sigma_p}$$

- 3.85124 = Silver Fund
1.046137 = S&P 500

Treynor Ratio:

$$\frac{R_p - R_f}{\beta}$$

- 0.12646 = Silver Fund
0.029389 = S&P 500

- 2.61344 = Jensen Measure:
 $R_p - R_f = \alpha + \beta (R_m - R_f) + \varepsilon$

Lessons Learned

As previously stated, the most

important lesson learned is the rather sobering effect of working with a client's money under real rather than simulated circumstances. One faculty member remarked about the increased maturity and professionalism the group displayed at its first presentation. Obviously, the fund provides an exceptional forum for growth.

The Sharpe and Treynor ratios show that the performance of the Silver Fund, after adjustments were made for risk, was below that of the market. The alpha in Jensen's measure, indicates the degree to which the performance of a fund is abnormally higher or lower than the market. Were the alpha significantly above zero, this would imply that the managers of a portfolio were indeed adding value to the fund. In the case of the Silver



Fund, the alpha was significantly lower than zero, which implies that the fund returned less than would a randomly selected portfolio of stocks, on a risk-adjusted basis.

A more concrete example of lessons learned occurred in late November 1984. Due to various circumstances, only half of the team were present at the bi-weekly meeting. At that time, it was proposed that a T-bond option be purchased. Since those present generally agreed that interest rates would rise in the near future, the option *seemed* to be a reasonable hedge against the resultant bear market. We lost several hundred dollars on the option when interest rates continued to decline. But the lesson learned was much more than an increased knowledge of the vagaries of the options market. The primary lesson learned was the need to vigorously question proposals and to begin to scrutinize good sounding proposals for hidden (and even not-so-hidden) defects.

Obvious lessons learned included those of a more technical nature. We learned basic option strategies. We learned (slowly) not to panic when the market dropped, nor to party when the market rose. We discovered resources such as the O'Neil data base that provided detailed information on both industries and individual firms. We became conversant with transaction costs (commissions, etc.) that are not present when trading stocks on paper. We learned, first-hand, the risks of market fluctuations even when fundamental security analysis is involved. Our fundamental analysis led us to take a position in Union Carbide by selling some put options. But the disaster at Bhopal, an unpredictable event, turned a sound fundamental strategy into a monetary loss.

Finally, we have all become more proficient at work by committee. In the beginning, we were almost paralyzed in our decision-making ability, since a consensus of ten is difficult to obtain. Eventually, we learned to analyze, evaluate, and finally make



decisions by simple majority vote. The fund provided a forum that demanded group interaction, and helped develop the interpersonal skills of the fund members.

Important Events

Perhaps the most important event of the year occurred some three weeks after the group first met. In professional terms, Dr. Lambert took us to the woodshed concerning our attitude towards the fund. He made it very

clear that professional conduct was expected, and the increased pressure added immeasurably to the professionalism of team members. In fact, the impression made was so strong that the following week he was forced to caution us not to be so concerned with performance that we become too tentative in making portfolio decisions.

Early in October, once again with the prodding of Dr. Lambert, and after a great deal of discussion, the group

Investment Portfolio for Silver Investment Fund

Portfolio Date: 19 March 85

Equities:

Shares	Company/Security	Purchase Price	Yield	P/E	Current Price	Current Value	Price Apprec.
100	Arizona Public	20.250	12.84%	6	21.750	2,175.00	7.407%
100	Burlington North.	45.125	2.22%	7	52.250	5,225.00	15.789%
100	Fed Express	36.750	0.00%	21	34.375	3,437.50	-6.463%
100	Ford	48.125	3.32%	3	43.625	4,362.50	-9.351%
100	GTE	40.500	7.60%	8	43.250	4,325.00	6.790%
100	GT Nthn Nekoosa	36.250	4.19%	8	33.250	3,325.00	-8.276%
50	IBM	124.375	3.54%	12	130.500	6,525.00	4.925%
100	K Mart	35.875	3.46%	9	33.500	3,350.00	-6.620%
100	Mid. South Util.	13.125	13.56%	5	13.250	2,650.00	0.952%
100	Mobil	29.750	7.39%	9	29.250	2,925.00	-1.681%
100	Monsanto	44.250	5.20%	8	42.500	4,250.00	-3.955%
100	Sears	32.875	5.35%	8	34.875	3,487.50	6.084%
100	Southland	30.500	3.02%	9	32.500	3,250.00	6.557%
100	UAL	47.000	1.60%	7	44.875	4,487.50	-4.521%
300	Union Carbide	50.000	6.80%	13	37.250	11,175.00	-25.500%
Total Equities						64,950.00	

Fixed Income Securities:

Type	Coupon	Purchase Price	Amount	Yield	Current Price	Current Value	Price Apprec.
Rapid Am./06	10.0%	66.750	5	15.30%	67.00	\$3,350.00	0.37%
Lykes/94	7.5%	61.375	5	15.50%	60.500	\$3,025.00	-1.43%
Total Fixed Income						\$6,375.00	

Stocks Sold:

Shares	Company/Security	Purchase Price	Sale Price	Date Purchased	Date Sold	Annual Apprec.
50	Subaru	106.00	116.00	25-Oct-84	15-Nov-84	163.97%
100	Bankers Trust	52.00	60.00	02-Nov-84	26-Feb-85	48.41%
100	Bank of Virginia	20.75	25.00	07-Nov-84	26-Feb-85	67.35%

Statements of Earnings and Current Portfolio Status

Portfolio Composition

	Quarter 1 Nov. 30	Quarter 2 Feb. 22	Quarter 3 (to date) Mar. 19
Equities	\$47,883.95 48%	\$76,996.47 75%	\$66,702.11 66%
Fixed Income	\$6,375.00 6%	\$6,375.00 6%	\$6,375.00 6%
Money Market	\$47,060.40 47%	\$19,943.61 19%	\$28,759.62 28%
Options*	(\$1,042.00)	(\$75.00)	(\$12.50)
Total	\$100,277.35	\$103,240.08	\$101,824.23

*Negative value indicates short position.

Summary of Returns

	Quarter 1 Sep. 1 - Nov. 30	Quarter 2 Dec. 1 - Feb. 22	Quarter 3 Feb. 22 - Mar. 19
Beginning Value	\$100,301.50	\$100,277.35	\$103,240.08
Income	\$2,489.90 2%	\$1,715.71 2%	\$416.99 0%
Appreciation	(\$1,323.50) -1%	\$1,535.75 2%	(\$1,751.25) -2%
Total	\$1,01,467.90	\$103,528.81	\$101,905.82
Expenses	\$1,190.55 1%	\$288.73 0%	\$81.59 0%
Ending Value	\$100,277.35	\$103,240.08	\$101,824.23

made its first investments and began to fill out the portfolio. Some decisions like the purchase of Rapid American bonds were influenced largely by our advisors. Most, however, were the result of our own analysis. Stocks were chosen from the oil, communications, banking, retailing, computer, auto, and chemical industries. A great deal of excitement was generated with the success of the Subaru stock, and the team began to work together exceptionally well. Experience at least created constancy, if not expertise, as the team became more and more comfortable with the purchase of securities.

As the portfolio matured, fund members turned their attention to the option markets. We purchased a "straddle" option on Union Carbide three weeks before the tragedy of Bhopal. Union Carbide stock dropped dramatically, and we held 300 shares of \$38 stock "put" to us at \$50 because we did not react quickly enough to close out our position. Not only did this event dramatize the need for a well-diversified portfolio, but it brought out a major weakness in our group strategy. We had developed a fairly good idea of when to purchase securities, but there was no clear consensus as to when we should sell them. This became a recurring problem, since our initial strategy was based upon long-term growth. However, market jumps in late January presented obvious opportunities to liquidate some of our portfolio with some gains.

In sum, the Silver Fund has provided an opportunity for which we, the fund's student managers, are grateful. We believe that the fund has been successful not only as a forum for student learning and growth, but also as a profitable investment of university funds.

Members of the Silver Student Investment Fund management team for 1984-85 were James Behunin, Dean Brooks, Morgan Edwards, Scott Hansen, Michael Haymond, Curtis Hill, Michael Johnson, Carlos Lee, Steve Spencer, and Richard Vincent. ■

**BUMSTEAD !
YOU'RE
FIRED !**





...IF I CAN WORK
OUT THE LEGAL
IMPLICATIONS...

William M. Timmins

When employees have no job security, their bosses tend to take advantage of their vulnerability; when they take their job security for granted, employees tend to slacken their efforts; the pivotal problem in employment is how best to optimize the relationship between security and productivity, without exploitation on the one side, or slackness on the other.

—Sydney Harris

Once upon a time, the employer-employee relationship was a simple one. Employers fixed the conditions of labor with little or no outside interference, regulation, or direction.

Workers were “employed at will,” meaning that the continuation of employment was a decision solely made by management at will, almost totally without regulation or control. If the employee didn’t work out, he or she was simply “let go.” The right to fire was especially sacrosanct.

Obviously this practice has changed radically in the past few decades. Courts and legislatures have created a series of “exceptions” to an employer’s right to fire at will.

Labor unions (which represent about 22 percent of the U.S. work force) have worked vigorously to protect members against wrongful discharge by negotiating various contract pro-

visions governing firing, layoffs, and reductions-in-force. Another 15 percent of the U.S. work force, public employees, are typically protected against wrongful discharge by civil service laws, merit systems, and career service statutes. These regulations commonly provide for elaborate due process provisions, “just cause” discharges, hearings, appeals, and so on.

But what about the nonunion and nongovernment workers? They are normally “hired for an indefinite period of time that is generally terminable at the will of the employer.” In other words, they can be dismissed for almost any reason, or sometimes even with no reason.¹

Legal Challenges to Firing at Will

As already noted, laws and legal rulings have changed our employment-at-will tradition. For instance, the following two cases show how an employer's traditional right to fire at will has been sharply restricted by the courts.²

Olga Monge was a machine operator for a small manufacturer in New Hampshire. When she applied for a higher paying job on a press machine, her foreman told her that she would have to be "nice" in order to get the job. Soon after Mrs. Monge got the higher paying job, the same foreman invited her out on a date. Mrs. Monge refused, explaining that she was married and had three children. A few weeks later, the press machine was shut down and Mrs. Monge was demoted to a lower paying job. She alleged that she was harassed for a period of months and was ultimately fired because she refused to date her foreman.

Mrs. Monge sued the company claiming that this unjustified hostility caused her termination and constituted a breach of her employment agreement. The Supreme Court of New Hampshire agreed. The court held that a termination of an at-will employee "which is motivated by bad faith or malice or based on retaliation is not in the best interest of the economic system or the public good and constitutes a breach of the employment contract . . ."

In another situation, John Chamberlain had worked for the same company for 23 years, rising to the position of manager of Manufacturing Engineering. Mr. Chamberlain's job performance had been evaluated positively over the years, and he had received regular promotions and salary increases. However, Mr. Chamberlain's performance began to deteriorate in 1978 when he was passed over for the second time for the position of vice-president of manufacturing. Mr. Chamberlain became a disruptive management employee, unproductive in his assigned tasks and antagonistic


toward his supervisors, including the new vice-president of manufacturing, Mr. Dale Miller.

During Mr. Chamberlain's annual performance appraisal in June 1979, he was told by Mr. Miller that he would not receive an annual wage increase because of his lack of productivity and his bad attitude. Mr. Miller's parting remark was, "You have a lot of talent. We haven't decided what to do with you." Mr. Chamberlain was notified on September 7, 1979, that he was terminated and while he would be paid through the end of 1979, September 7 was to be his last day of work. Mr. Chamberlain sued the company on a number of counts, including age discrimination, breach of an implied contract, and negligence in the company's failure to warn him that he was about to be fired.

A federal district court denied the first two claims, finding that the company had good cause to dismiss Mr. Chamberlain and did not have any contractual obligation to provide him with notice prior to his dismissal. But



**LAWS AND LEGAL
RULINGS HAVE CHANGED OUR
EMPLOYMENT-AT-WILL
TRADITION.**



**AN EMPLOYER'S
TRADITIONAL RIGHT TO
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BY THE COURTS.**

the court held that the company did have a contractual obligation to conduct annual performance reviews and that it owed Mr. Chamberlain a duty of ordinary care in conducting those reviews. The court held that the company was negligent for not telling Mr. Chamberlain at his performance evaluation in June 1979 that he was about to be terminated unless dramatic changes occurred.

The court considered the fact that Miller was in a position to *eliminate all doubt* concerning Chamberlain's status, and, further, to provide Chamberlain with the *greatest possible incentive* to reform his conduct and improve his performance. There was no reason for Miller *not* to take the necessary step of informing Chamberlain, and his failure to do so may properly be labeled as negligent in the circumstances of this case (emphasis original).

The court concluded that the com-

pany made Mr. Chamberlain's termination more likely by failing to fully inform him about his risk of being terminated. Since the company's negligence was therefore partially responsible for the dismissal, the company was liable for part of the damages suffered by Mr. Chamberlain as the result of his dismissal.

Employer Reactions to Fire-at-Will Restrictions

The BYU Skaggs Institute of Retail Management provided funding to conduct research on national firms and their responses to such new restrictions on their right to terminate employees at will. The author wrote to some 100 smaller and major corporations all across the United States. Some 74 usable responses were received. In addition, the author visited and conducted in-depth interviews with personnel officers of more than a dozen major businesses. As would be expected, most companies have responded to new legal developments quickly and with determination to protect traditional management rights.³

One common reaction, especially among the larger retailers, was to revise their employee handbooks to include clarifying language like this:

This handbook is intended to provide company employees with a general understanding of the personnel policies at _____.

_____ The personnel policies in this handbook supersede and replace all prior published or unpublished policies. The information in this handbook should be helpful in familiarizing employees with the company. The handbook, however, cannot anticipate every situation or answer every question about employment. *Neither this handbook nor any provision in this handbook constitute a contract of employment or any other type of contract.* The company must demonstrate flexibility in the administration of policies and procedures, and reserves the right to change or revise policies and procedures without notice whenever such action is deemed necessary by the company.

Indeed, one major "junior department store" added this additional language to their employee manual:

Employees are classified at the time of their employment as Permanent, Part Time, or Temporary.

Permanent Employees: *The word Permanent used as an employee classification, is a title only and has no reference to any measurement of time as commonly defined.*

A third firm, with over 5000 employees, has "just revised (late 1984) its employee handbook with the attached disclaimer":

The policies described in this booklet are not conditions of employment, and the language is not intended to create a contract between _____ and its employees.

A last example of such policy changes in corporate employee handbooks comes from a firm with "over 10,000 employees." Note the careful wording of this company employee handbook:

I have received orientation to the policies, procedures, and regulations of _____. As a part of that orientation, I received a copy of the company employee handbook, which includes the standards of conduct, principles of business conduct, equal opportunity employment policy, and the company's policy regarding solicitation and distribution.

The provisions of this employee handbook may be changed at any time. These provisions do not constitute a contract of employment, nor are they covenants. They are guidelines only and may be changed when, in the judgment of the company, circumstances so require.

Every effort has been made to insure that the information contained in this booklet is consistent with that contained in our written policies and procedures. If there is any difference, the written policies and procedures will govern.

I fully agree to comply with these policies, procedures, and regulations.

Changes in Employment Application Forms

Firms also report numerous other

changes besides just disclaimers or statements in employee handbooks. One of the largest and most successful department store chains in the world has added the following applicant signature paragraph to its employment application blank:

I certify that the information contained in this application is correct to the best of my knowledge and understand that any misstatement or omission of information is grounds for dismissal in accordance with _____ policy. I authorize

the references listed above to give you any and all information concerning my previous employment and any pertinent information they may have, personal or otherwise, and release all parties from all liability for any damage that may result from furnishing same to you. In consideration of my employment, I agree to conform to the rules and regulations of _____, and my employment

and compensation can be terminated with or without cause, and with or without notice, at any time, at the option of either the company or myself. I understand that no unit manager or representative of _____ other than the

president or vice-president of the company, has any authority to enter into any agreement for employment for any specified period of time, or to make any agreement contrary to the foregoing. In some states, the law requires that _____ have my written permission before obtaining consumer reports on me, and I hereby authorize _____ to obtain such reports.

Applicant's Signature _____
Date _____ 19____

Another major firm with well over 10,000 employees, requires each applicant/employee to sign the following:

I agree that if employment is offered to and accepted by me, it is mutually understood and agreed that any employment is not confined to a fixed term and may be ended by either party without prior notice, unless otherwise affected by written company procedures.

**MOST FIRMS ARE
VERY SENSITIVE TO THE
LEGAL AND FISCAL IMPLICATIONS
OF THE "TERMINATION
AT WILL" DOCTRINE.**

**BUT SOME
COMPANIES FEEL NO
NEED TO ADJUST.**

Other Employer Actions to Clarify Employment Relationships

A majority of the respondents to the survey also noted that corporations are making numerous other changes and adjustments to preserve their right to terminate at will and to avoid expensive litigation. These changes may be summarized as follows:

- ☐ Recruitment ads, literature, and brochures have been reviewed to delete or disclaim contractual employment.
- ☐ Interviewers have been trained and instructed to be extremely cautious in pre-employment interviews and hiring interviews, and not to make verbal promises or commitments about "careers," "life-time employment," "continuous employment," and so forth. One firm with 5,001 to 10,000 workers told the author in an interview, "All our supervisors who do the hiring are trained and retrained in this all the time—continued employment is based only upon satisfactory performance and at the sole discretion of the company, and supervisors say this to new recruits, reinforce it in annual performance reviews, and state it in all disciplinary actions. We may be too cautious. . ."
- ☐ Personnel manuals (written policies and procedures) have been carefully reviewed, section by section and topic by topic, to eliminate implied contracts or actual binding language.
- ☐ Employee evaluation forms have been reviewed (and revised, where any "contract" language is implied or actually present), supervisors have been carefully trained in what to say

(and what *not* to say), etc.

In summary, most firms are very sensitive to the legal and fiscal implications of the "termination at will" doctrine. More than two-thirds of even the smallest firms (below 100 employees) have made some or most of these adjustments, and virtually *every* large firm has at least rewritten its employee handbook or revised its employment application form.

But some companies feel there is no need to adjust. One small women's business wrote, "Have not had any problems to date." Another owner of a food business (three stores) wrote, "Our company is a family business, and (we) are very protective of our employees. We believe in life-time employment and strongly believe and practice participatory management." He objected strenuously to the whole idea behind the survey and felt it was a sad commentary on our times.

Other respondents lamented that the "courts and legislatures have brought us to such a point" where employers have to guard so carefully against litigation.

Nevertheless, nearly all companies have made the necessary changes and adjustments (the larger businesses have been much more thorough than smaller ones) and are routinely implementing these "new" policies by training and periodic reviews. About 75 percent have limited changes (to date) just to the application blank and to the pro-

cedures manual and/or handbook, however.

Not one company reported any negative feedback from applicants, employees, customers, or stockholders, or any difficulty in recruitment or retention of workers by wording on application blanks, handbooks, and so forth. Most attributed such success (to date) to careful advance planning, thorough training of recruiters and managers, and continued personnel office follow-up to assure company-wide compliance. Many firms pay great attention to *not* offending applicants or employees as the doctrine is explained by stressing what a good place to work the firm is, how competitive wages and benefits are, etc.

While some who read this will mourn the death of "firing-at-will," they must also be prepared to face the consequences of a game based upon new rules in the employee rights arena. ■

Notes

¹An excellent legal discussion of this issue can be found in L. Z. Lorber, et. al., *Fear of Firing: A Legal and Personnel Analysis of Employment at Will* (Alexandria, Va., The ASPA Foundation, 1984).

²*Ibid.*, pp. 9, 13-14. See Lorber text for full legal citations. (footnotes omitted here).

³The profile of survey respondents: 22% (16) had 1-100 employees; 16% (12) had 101-1,000 employees; 11% (8) had 1,001-5,000 employees; 19% (14) had 5,001-10,000 employees; and 32% (24) had over 10,000 employees.

A B O U T T H E A U T H O R S



Lynn E. McClurg served as associate dean of BYU's College of Physical and Mathematical Sciences before assuming his current

post as assistant administrative vice-president for Information Systems. Prior to coming to BYU, he specialized in industrial logistics for the U.S. Air Force, retiring with the rank of Lt. Colonel. Dr. McClurg joined the School of Management's information management faculty as an associate professor in 1983. He holds a BGE degree from the University of Nebraska, an M.S. in systems management from the University of Southern California, and an Ed.D. in administration of higher education from BYU. He was the 1980 recipient of BYU's Ben E. Lewis Award for Excellence in Management.



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Brent D. Wilson joined the School of Management faculty in 1982 following five years of teaching at the Darden Graduate School of Business Administration at the University of Virginia. Wilson received his DBA from Harvard University, an MBA from Northwestern University, and a B.A. from Weber State College. He worked for Ford Motor Company and has taught at Simmons College and Boston University. His professional interests are in the areas of corporate and international finance and international banking. He has written several articles and co-authored a text, *Corporate Financial Analysis*.



Paul R. Timm teaches communication courses in the MBA program and is a member of the information management faculty. He earned

his B.A. degree at the State University of New York at Buffalo, an M.A. at Ohio University and, after seven years corporate experience with Bell Telephone and Xerox, returned to school for a Ph.D. at Florida State University. Timm serves as the editor of *Exchange* magazine and has published widely in professional journals and magazines. He has authored six books in management communication, human relations and supervision. Four of these books have gone to second editions. He also served as assistant dean in the School of Management from 1981 to 1983.

