

# Dividend

*The Magazine of the Graduate School of Business Administration • University of Michigan • Winter 1983*



Starting  
Small and  
Growing  
Big: The  
Essentials of  
Managing  
Growth



# *New York Times Publishes a Four Part Article on the Business School*

A profile of the Business School was published in the Sunday, November 28 issue of the *New York Times* as the second in a three part series on business schools in the United States. Harvard was covered on October 3rd, and Stanford is to be included in an upcoming issue.

The article, which labeled us as "one of the strongest research schools in the country, according to business scholars," took up <sup>3</sup>/<sub>4</sub> of a page in the *Times*, and was split into four parts which highlighted different aspects of the School.

The first section discussed the research being done by finance professors E. Han Kim and Michael Bradley, who are studying more than 2,500 acquisitions over a two year period. "Our findings are that it doesn't look like the acquiring firms are building empires," Professor Bradley is quoted as saying. "The combined value of the combined firm tends to be higher. There seems to be synergy at work."

The article continues, "Because most takeovers are for less than all shares outstanding, Professor Bradley said, those shareholders who do tender their stock early tend to do better. Professors Bradley and Kim found that, on average, there is a 30 percent upward swing in the price of shares of acquired companies but those shareholders who tender their shares early in such takeovers usually gain about 35 percent."

In a second story, the changes taking place in the accounting field are discussed. Citing the excellent reputation of the School in

accounting, the article goes on to say that the number of MBA students specializing in the field has been halved from its former levels, primarily because average starting salaries for accountants are now less than in other specialties. "Now only about one in 10 Michigan MBAs want to be accountants," says the story. "They find the glamour and money of finance, banking, and computer information systems far more appealing — and lucrative. Ironically, some of those fields —

particularly the computer area — are pioneering new, more sophisticated ways to do what some accountants still do by hand."

In commenting on this part of the *Times* article, Dean Gilbert R. Whitaker, Jr. pointed out that the numbers of BBA accounting graduates at Michigan have been rising rapidly as have their comparative starting salaries. "Furthermore," he says, "the Business School faculty has approved an innovative 5-year program leading to a Master's Degree in Accounting. This program, which limits admission to 30 outstanding students per year, integrates two years of liberal arts, one year of undergraduate business, and two years of graduate business into a well-focused whole which provides both breadth in liberal arts and business and depth in accounting. We expect this program, which was developed with advice from the Big Eight, to provide a national role model in high level preparation for careers in accounting, producing graduates who will rise to the top as leaders in the professional business of accounting. Accounting teaching and research remain very strong fields at Michigan as they have adapted to changing external market forces and changing interest in the field of accounting."

The third article in the four part profile discusses research being done at the School on factors leading to management's loss of control over computer systems. The research,



which is being done by Professors Robert Mautz, Alan Merten and Dennis Severance, has identified nine similarities among companies in which computer services tend to be out of control. What can companies do about this? "Managers and computers must get together," Professor Merten is quoted as saying. "Too many computer experts are more committed to their profession than to their organization. And too many companies view computer people as freaks down in the basement. The systems people need to learn more about their companies and the company people need to learn more about the systems. Both sides express strong desires to bridge that gap. They just have trouble bringing themselves to it."

The fourth article discusses a three-pronged approach to understanding how organizations work. Professor Noel Tichy believes organizations must link their technical, political and cultural systems — like the strands of a rope — in order to develop a unified approach to the long-term planning that keeps an organization thriving. Professor Tichy identifies the systems as: *technical* (the typical problems of a business — production, people, money, resources); *political* (the internal battles for power and resources between organizational fiefdoms); and *cultural* (the basic norms and values held by members of an organization). He says all three systems go through various cycles depending on what changes the organization is going through at the time. If the systems are working at cross purposes the organization can become greatly weakened. "The response to managing in turbulent times," Tichy is quoted as saying, "requires organizations to return to basic questions about their nature and purpose. That's what this approach could help them accomplish."

The *Times* articles were written by Andrew R. McGill, assistant to the managing editor of the *Detroit News*, and Ph.D. student in organizational behavior at the Business School. Copies of the article are available by writing the Dean's Office.

# Dividend

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Winter, 1983

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Three entrepreneurs who founded their own companies and experienced the "growth pains" involved in building an organization discuss how they got started and what they have learned. They include;

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**Cover photograph** by Virginia Geren. **Shoes on the cover and page 4 used** courtesy of Jacobson's Ann Arbor store.

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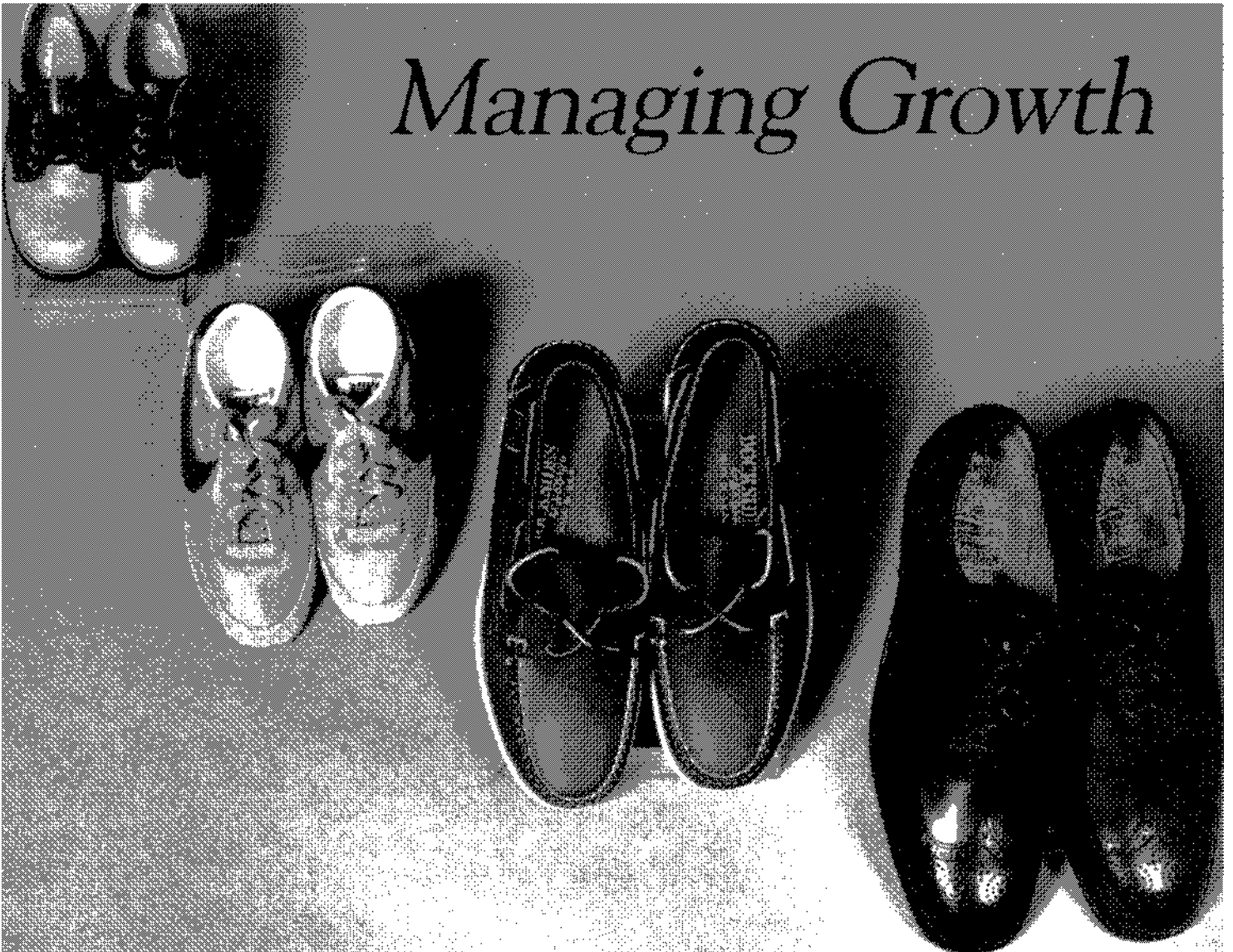
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*The Essential*

*Managing Growth*



# *It's very important to know your business so well that you can create thinking about your own industry/'*

*Editor's Note:* It was a packed house in Hale Auditorium on Homecoming Weekend when alumni and students came to hear the stories of three entrepreneurs who founded their own firms and experienced the "growth pains" involved in building an organization. The discussion was so interesting that we decided to bring it to our readers via the pages of *Dividend*. What follows is an edited version of each of the panelist's remarks, plus the question and answer period that followed. The program was sponsored by the Alumni Office.

Fred Alger, MBA '58, founded Fred Alger & Company, Inc. in 1964, a fully integrated firm responsible for research, trading, and transaction processing. Under Alger's management, the firm's assets have grown from \$10 million in 1964 to more than \$1 billion.

Fred Alger & Company is an investment advisory firm. Our customers are corporate pension funds, and our charge is to manage diversified portfolios in the stock market and to make as much money as we can each year. In the first 17 years, our composite equity accounts compounded nearly 20% per year. In this, the 18th year — a difficult recessionary year — our accounts are up 25%. So much for the basic business of managing money.

From a company standpoint, we have grown even more dramatically. I started the company by myself; we now have more than 60 people in the firm; assets under management have grown from \$7 million to \$1.4 billion and our book value per share has grown five thousand percent. Our pension and profit sharing plan alone has more than \$100,000 per employee in it. So, in the past 18 years the business has been very profitable both for our customers

and for the company. The questions I was asked to talk about today are: How did I get from there to here? What problems did I have to solve along the way, and what thoughts about all of it could I impart to you?

When I started my company in the fall of 1964, there were only a few intensive money management firms around. The idea was to move assets around to take advantage of opportunities in the stock market when they occurred rather than buying stocks and holding them, which was the old style. The promise for the customer was much better performance. The promise for the money management firms was that if you did well you got paid more, because the fees were performance fees rather than fees based on assets.

My first client was a group of mutual funds called the Security-Management Company. They had two funds. We were to manage the money in New York on a fully discretionary basis. We got one eighth of one percent, which on seven million dollars produced around eight or nine thousand dollars a year in income. This wasn't very much, on top of the modest capital I had, to keep a company and a family going, but it was enough — you could manage.

There were two funds — a balanced fund and a growth fund, and the business plan was that I would use the growth fund as a show-case account to attract funds for management on a performance fee basis. So the first major hurdle to clear was that I had to produce a stunning result for the growth fund. Now in that first year (1965) we did achieve our goal. In fact, the fund was number one in performance in the country with a gain of something over 78%. And the next seven years, among six hundred funds we had two first place finishes and a second place finish; and in three other years we placed in the top fifteen of all

funds. This was important because when your wholesalers went to retail establishments they needed to have high performance so they would have something to talk about every time they went in the door. Assets under management on just the mutual fund side went from 7 million to \$150 million at the end of seven years.

Our second goal (which was my principal goal since the mutual fund business was such a low income business comparatively) was to attract money for the performance fees. And because of our first success we were also successful in this respect. In December, 1965 we received our first business from Fund of Funds, which was to grow to over a \$100 million dollars of funds under a performance fee basis. At this point we made a good decision. We decided that the nature of Fund of Funds would not be a lasting business so we didn't budget against it. Instead we banked it. And as it turned out, there were tough times ahead for us, and the fact that we banked these large fees proved to be a smart move.

At about this time, as we moved into the late sixties, the business started to change. When I started the business, there were so few intensive money management firms around that you could find the smart guys on Wall Street, take their best ideas, assemble an interesting portfolio, and make a lot of money. But with the tremendous success that we had in attracting money, two things happened. First, the smart analysts wanted to be money managers instead of just smart analysts, and secondly, to compete for funds, every bank and insurance company in the country became an intensive money manager. And I could not compete financially with, say, the Morgan Bank.

Now, in every research system when stocks are going up there is plenty of glory to go around. But

when there are problems and you are dependent on someone else's research, the question is, "Where are you on the will-call list when the going gets tough?" And with the large number of entries into the business it turned out that the Fred Alger Co. was way down on the list!

At this point, I decided that I would have to do all of my own research, which meant I had to become a member of the Stock Exchange and keep all my brokerage business so that I could pay for an increased staff. It also meant I had to become a registered investment advisor and, unfortunately, registered investment advisors are prohibited from charging investment fees. Thus, I had to get rid of Fund of Funds as an account because they shared the performance fees and were unwilling to change that arrangement. So in essence I had to get rid of a major piece of very profitable business to secure the long term future of the company. It was a decision I made easily, because the long term future of the business was more important to me than any temporary loss of business.

Another major problem I had to overcome occurred in 1970, when the company which ran the growth fund we managed (and charged one half of one percent management fee) got sued by a New York lawyer who made a practice of suing mutual funds to get them to reduce management fees. The suit said that half of one percent was too high, since I was doing all the work for the fund for an eighth of one percent. Well, the handwriting was on the wall, and in this case it said that Alger was going to be expendable. Forget the fact that we had created the funds, that we had done a great job for them. With that kind of continuing pressure Alger was indeed expendable. So in 1970 — having fired a large piece of business (Fund of Funds) already — we knew that we were going to be faced imminently with the loss of our largest piece of business, and we had to do something about it.

As a consequence, we entered negotiations with City Investing to acquire two funds — a closed end fund specializing in convertibles, another small fund which we ended

up closing, and a small retail brokerage house. So we were able to adapt. And while we took a big hit on assets under management, because we had banked that money that we had earned from Fund of Funds we were able to recreate our business in a profitable and interesting way.

Another hurdle I had to overcome — and I think it is a familiar one for all business men and women — is not to presuppose you know the market better than it knows itself. In the late 1970s the next burgeoning business was the pension fund business, which we are into now in a major way. But originally I had felt that pension funds really wanted a convertible product which offered security, an absence of downside volatility, some upside potential, and a high current income. And one could adopt strategies which would be attractive

to a pension fund. But as I got into the business, I discovered that really, what they wanted was for us to make money. They liked our ability as an organization to make a lot of money in the stock market. So as a consequence, we had to reposition ourselves and emphasize stocks, which was easy to do. The lesson here was — if a person wants a Cadillac instead of a Chevrolet, then give him a Cadillac. Of course, it was to our profit, as we made much more money managing equities than we ever would managing convertibles.

One of the questions we were asked to talk about today is structuring your management team. There is a tremendous advantage to a company if you start it yourself and your name is on the door. The advantage is that there is unquestioned decision making. If I



*Fred Alger, MBA '58, founded an intensive money management firm.*

say right turn, everybody turns right without questioning the decision because my name is on the door. There is also a more subtle advantage and that is, that one can be more generous in delegating authority. I have four division heads — and each one runs his area absolutely, and comes to me more or less for approval to solidify decisions that they've already made. I have a treasurer who has been with me since 1967 — a genius at administration who has been able to move us very successfully into clearing. Not only do we do all of our brokerage but we do all of our own clearing as well, and it's very unusual for a money management firm to do both. Our head trader has been with me since 1969. He has instituted a very sophisticated trading system which has allowed us to do all of our brokerage business without any discounts and yet to effect transactions on a net basis — a delivered basis — which are competitive. Our head of research is my younger brother, David Alger, MBA '68. He is nine years younger than I am — a brilliant young man, and fortunately there is enough age difference between us so we are not competitive, and he runs our research department with an iron hand and absolutely. So a terrific entrepreneurial advantage is to have your own firm.

Another question we were asked to discuss is why we think we succeeded. It's a difficult question. I think it's very important to know your business so well that *you can create thinking about your own industry*. If you can create thought in your own industry then there is a good chance that you will be able to dominate it. I think one last message I'd like to leave you with is that the success of a business or its failure is entirely due to management and *only* management. Which means that the training you are getting at the Business School (and indeed the training I got at the Business School) is the most valuable training you will get. Liberal Arts education as an undergraduate is also extremely valuable, but my graduate degree at the Business School was for me the most valuable learning experience I have ever had.

## *"If I had known what was ahead I would have never even begun."*

Thomas S. Monaghan, borrowed \$500 with his brother in 1960 to open a tiny restaurant in Ypsilanti under the name of Dominick's Pizza. Today, Domino's Pizza, Inc. has 800 stores with system wide annual sales of \$260,000,000, and employs over 6,000 people.

**I**would like to answer the question that's most often asked of me, which is "What's a guy with a name like Monaghan doing in the pizza business?" Here's how it happened.

I was 23 years old in architecture school here at the University of Michigan, trying to stay in school but I couldn't afford to. My brother knew a man by the name of Dominick Devarti who wanted to sell his pizza parlor in Ypsilanti near the campus. It was just a little hole in the wall. And my brother bought it and talked me into going into partnership with him. That's how it all began.

You know, someone asked me ten years after I started what I thought I owed my success to. I wasn't that comfortable talking in front of a crowd at that time, and I kind of panicked and tried to think real quick, what *do* I owe it to? (At that time I had about 35 stores.) And when I went back in my mind to that beginning, the only truthful answer was — plain pure stupidity! If I had known what was ahead I would have never even begun. It was the most humble beginning anyone ever started with. I made every mistake in the book.

So I went into business with my brother as a 50/50 partner. Of course, the first rule is, you should know something about the business you are going into. I knew absolutely nothing about the pizza business except that I loved to eat pizzas. And talk about being undercapitalized! I think I had \$77 in my checkbook. We borrowed the \$500 down payment and I never did get a receipt from the

seller. I had no idea what the total price was, I had some vague idea how much the monthly payments were, there wasn't even a lease on the place! I could have signed this note for thousands of dollars and not had a place to operate. I didn't go to see a banker, I didn't talk to an attorney (can you image what kind of advice they would have given me?)

So we started out in December of 1960. My original plan was that the pizzeria would be nothing more than a means of paying my way through architecture school. The place had formerly been open seven hours a night — from five to midnight. I figured my brother would work 3 V% hours, and I would work 3V2 hours, and I would have plenty of time to study and get through school. Then my brother got cold feet and decided to back out (although he kept his 50%). That meant I was going to have to work the whole seven hours a night. I dropped out of school, and the truth of the matter was I was working well over 100 hours a week. There was complete disaster. In fact, the first month we didn't even have a telephone! Now you try to operate a pizza parlor without a telephone!

We had five sizes of pizza ranging from six inches to 16 inches, and about 90% of our orders were for the six inch pizza. We charged 30¢ for that. I wanted to make sure my prices were cheaper than anywhere else. My big concern was I didn't want us to screw the customer. Now that's one thing I did right. That was good marketing strategy. But the problem was I sold that pizza for 300, and it took just as much labor and just as much money to deliver that 30# pizza all the way across Ypsilanti — four, five, six miles away, free delivery. And I was selling those things like *crazy*. I was so busy I didn't have time to sit down and pay the bills. I could never handle the rush. I was *always* behind. And when I got an order for

a 12 inch pizza, that was cause for celebration.

One day after we were in business about six months, my brother said, "You know, Tom, you're better at this than I am. I think we ought to split up. I just want out. You don't have to give me anything. I just don't want the bother." I said, "Well I think I ought to give you something." He said, "No, don't give me anything." Of course we didn't have any money. So the only thing I could think of to give him was our Volkswagen — it was a used Volkswagen, our delivery car. We had just made one payment on it, so I said, "You go ahead and take the Volkswagen and I'll continue to make the payments."

Now that turned out to be a very valuable Volkswagen. For that, I bought out half of what today is Domino's Pizza.

About a month or two after this, I was in the middle of one of those rushes, and I was way behind, and I got just one order too many of that damned six inch <sup>131ZZ3L</sup> pizza! And I said, "No more six inch pizza!"

All of a sudden we were handling the rush! In fact, it didn't even get *busy*. And at the end of the night we had about twice as much money as we had ever taken in before! Up until that time the more business I did the more money I lost. I was losing 4 or 500 bucks a week, and then all of a sudden I was *making* 4 or 500 bucks a week! I was rich! And I owned the whole thing!

At this point I was scurrying around for advice because I was young and didn't have a lot of confidence in my business ability. I seemed to be pretty disorganized. I never was and never will be an administrator. And I thought I was getting good advice from an old timer who had been in the pizza business before. He had gone bankrupt but he'd been successful for a while and he had a lot of answers. I learned a lot from him. So I tried to get him to work for me, but he wouldn't unless I gave him a partnership. So I asked him how much interest he had to have and he said at least 50%. I gulped and said, "OK, How much will you pay me for it?" And he said, "Oh, \$500." I

gulped again, and then I thought, well, 50% of something is better than 100% of nothing. I had this fear that when I finally got some success it might slip through my fingers because of my lack of experience in business and so on. But I figured that with my hard work and his brains we could stabilize this business and make it grow. Well, that turned out to be the most lopsided partnership in the history of American business. The guy got a free ride for three years. And I was really as much to blame for it as he because nobody would be as stupid as I was to put up with this absentee owner who was living at that time better than I live today, while I was living on about 50 bucks a week, living in a house trailer and driving an old rusted-out Rambler. So about three years later, the bills were piling up. We'd gotten into some restaurants because he didn't feel there was any potential in the pizza business. The pizza business was supporting the losses in the restaurants. He approached me one day and said he couldn't stand the pressure any more and we ought to split up. So he made a proposal to me that really got me mad, but I didn't let him know it. He wanted \$35,000 in cash! Now I don't know where he thought I was going to get that. And he wanted me to take over all of the bills. Well, we negotiated the deal pretty much the way he wanted it. I borrowed from suppliers, I borrowed a little from the bank and we bought him out. That was in 1965.

This was a hopelessly insolvent situation but it didn't bother me at all. In fact, it forced me to stretch a little bit. And I came up with the concept of delivering pizzas. Now delivering pizzas doesn't seem like much to you today when you think of how many people do it, but the fact of the matter is that today Domino's delivers about half of the pizzas delivered in the United States. It was a new concept then. The only pizza places that delivered were the places that *had* to deliver to survive. Basically, any pizza place that delivered, you really wouldn't want to buy a pizza from, because if they had a good product they wouldn't *have* to deliver. Nobody delivered unless they were crazy or stupid and I was

both. And I loved delivering because it was a challenge. First of all, it was something that I found out I could do better than anyone else. Nobody wanted it except the customers. And so — I focused on delivery.

I couldn't really do this during the course of the partnership, but when we split up I went whole hog. I took all of the tables out of our places, I took everything off the menu but pizza and I streamlined the operations so that we could focus on nothing but delivery. The first year our business doubled in the three stores that we had. That was also when I changed the name. Dominick didn't want me to use his name any more, so I came up with the name Domino's because it sounded similar. I was scared to death to change the name for fear of losing some business, because by that time our Ypsilanti store was already the highest flying pizzeria in the state of Michigan. So we changed the name to Domino's and adopted the domino symbol and put three dots on it. I figured every time I added a store I'd add another dot. This week we opened our 800th store! Our logo would just be one big white rectangle.

At this point everything was going along pretty well, so we opened another store in Ann Arbor. Meanwhile my partner filed bankruptcy, and everything we had during that partnership was in my name, because his credit was bad. So when he went bankrupt it about pulled me under too. But we got through that crisis and were rolling along again. More stores. Stores doing more volume. And then one morning in February, 1968 I got a call at 4 in the morning and the guy said, "Your place in Ypsilanti is on fire." I lost about \$150,000 on that fire and I had \$14,600 in insurance. Talk about stupid!

Well, everybody went back into the store, including me, and we kept one bookkeeper in the office. We spent about six months paying off the bills, with sales higher than ever. We were ready to open up more stores, and by this time I was really getting a big head, because I had the busiest pizzerias in the United States, and it was the concept of delivery that was doing it.

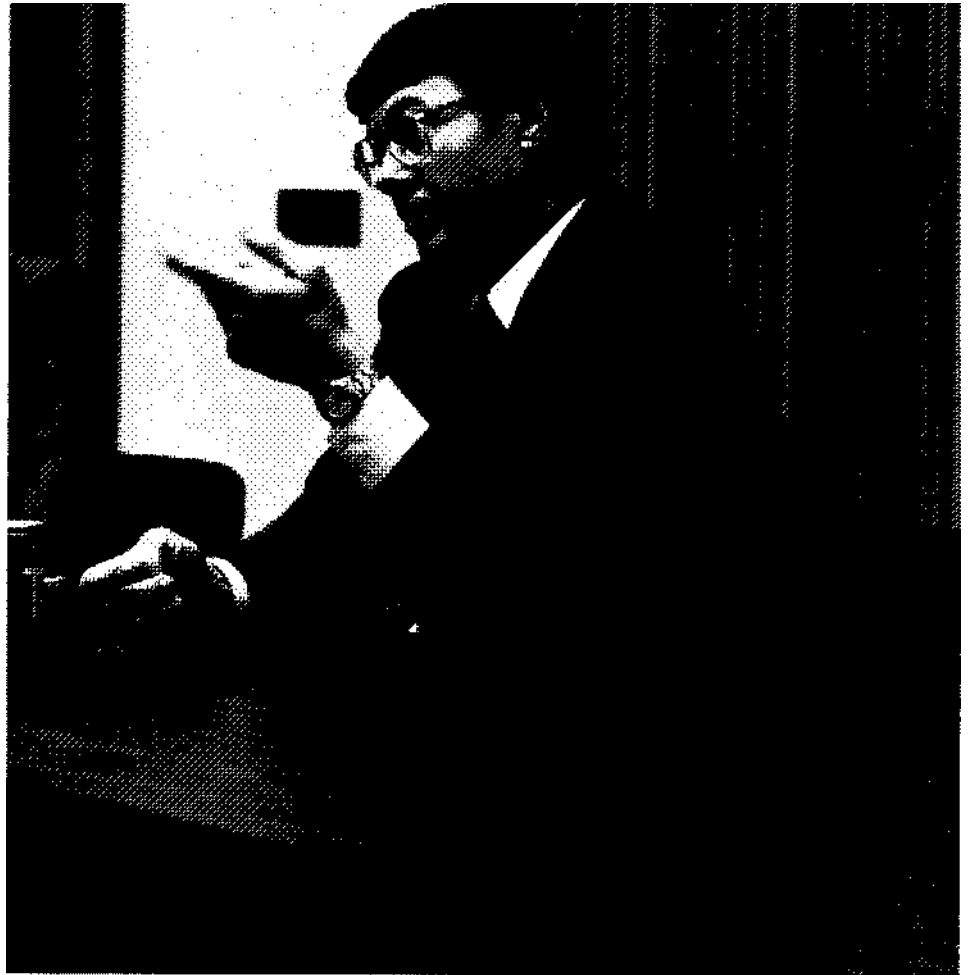


Then I started attending franchise seminars, and I met people like John Lloyd Brown and Ray Clark and they were flying into a seminar at Boston College in their Lear jets. Boy was that exciting! I figured "Gee. Our operation is just as successful as their's is, we just don't have as many of them. So let's get a lot of them." By this time people wanted to work with us, banks wanted to loan us money for a change, and brokerage houses wanted to take us public. And those were the go-go years for franchising. They were the hottest stocks on Wall Street.

At this point a brokerage firm gave us a game plan about the things we had to do in preparation to go public. They said you have to get a big CPA firm, you have to switch to a big city attorney, you have to increase your management depth — get some people with degrees to make your management staff look good, you've got to get computerized programs. I *did* all these things, and the thing they kept harping on was — you've got to show growth. And boy did I show them growth! In 1969 I went from 12 to 44 stores in ten months. And when the dust settled I had lost about a million and a half dollars! I had the busiest pizzerias in the world and I had the lowest volume pizzerias in the world. The new ones were terrible. We had become top heavy. The short of it is, I lost control of the company, and the bank took it over and brought other people in to run it. After ten months the franchisees were mad at them, the creditors were even madder, and they handed the company back to me. That was in March of 1971.

So I had to go back in the stores seven nights a week, supervise them, spend five days a week in the office doing practically nothing but talking to creditors. And it took me about a year and a half before I could finally start paying the creditors. By 1973 we had paid off all of our creditors and were rolling along pretty good.

Then in 1975 we had a problem with Domino Sugar over the use of the name. The attorney said, "Don't worry about it. They are not going to sue you. They are two entirely



*Tom Monaghan now has 800 stores in his Domino's Pizza chain.*

different businesses. And besides, they waited too long."

They sued us.

The attorney said, "Don't worry about it. You can't lose."

We lost.

We appealed. The attorney said, "Only 20% of appeals are won. You're going to lose."

We won.

But darned if they didn't take it to the Supreme Court. But the Supreme Court, thankfully, turned it down. This litigation took five years and cost us over a million bucks.

That brings us up to the present. I sometimes wonder whether I just have the wind at my back, or whether I'm awfully darned lucky, or maybe

I'm doing something right. And if I am doing something right, I sure would like to know what it is. I think one thing that we are doing right is that we run a very informal company. I try not to get caught up in the buzz words. It's very easy when you are running a company to get caught up in sophistication. I try to focus on only one thing, and that is satisfying the customer. In our business that means putting out as good a pizza as we can possibly make and delivering it as fast as possible. We're now the second largest pizza chain in the country and the largest privately held restaurant chain in the country, and I'm still trying to figure out what we are doing right.

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## *missing parts of your organization."*

C. H. Rubin, MBA '62, became interested in high technology start-ups and spin-offs while working as a CPA with Ernst & Whinney. He worked with Manufacturing Data Systems, Inc. and Daedalus Enterprises, Inc. from the start-up phase through a public offering and related accelerated growth. He has now started his own CPA firm — C. H. Rubin & Company in Ann Arbor, and has continued his work with high technology companies in the area.

y&i.

I'm last on the program but I'm also the one with the shortest history, so maybe that is appropriate. C. H. Rubin & Company is only about four years old. In that four years we have increased our volume by roughly a factor of five, which I think is pretty good for a service business. In a service business, you are just re-selling your time, so there are definite limits on growth and not so much opportunity for the multiple present in other types of businesses.

As a CPA with a small firm you deal with a lot of entrepreneurs. You're dealing with people like Tom who play "you bet your company" every time they have a fire or whatever disaster there is. I have worked with many firms from their inception, through rapid growth, to large scale success. Based on this experience, as well as my own, I think that no matter how your company begins, whether a start-up or spin-off, it will go through roughly three stages of growth.

C. H. Rubin & Company began as a spin-off, which is different from a raw start-up because in a spin-off you already have a part of the business in place. The product, with a market in some form, is already there.

Stage one in a spin-off is essentially



*C. H. Rubin works with high technology firms in the Ann Arbor area.*

a search for the missing parts of your organization. Before you "spun off" you were in an organization where others were doing certain things for you. It might have been a home office that was doing the accounting, or a research center doing research for you, or a legal department. In my case, an important missing part was the typing pool. I really missed that dearly in the first few months of my spin-off. I had no trouble doing an audit or a tax return. My problem was getting somebody to type the darned thing so that I could deliver it.

In a certain sense, in that first stage your organization is out of sync among the various parts. Certain parts may be very sophisticated. The product you may already know — you've had five or ten years in the business — but the rest of the things you're dealing with may be the basics like where do I purchase? These little things can take an inordinate amount of your time. It reminds me of a spin-off here in Ann Arbor when Willow Run Labs left the University. They had 350 employees, and this wonderful umbilical cord with the University's computer system. And all of a sudden that cord was cut and they had a hell of a scramble trying to figure out how do we get a payroll done? How do we get information together for customer billing? All these little details that they used to have done for them.

So your spin-off organization needs some time to mature in the support areas, and you have to get off of what I call the IBM syndrome — the need for or expectation of IBM quality/quantity support staff. A small company will not have a perfect backup or support staff. You have to run basically by the seat of your pants. You have to make quick decisions, you don't have time to consult with anybody. You have to develop what I call the multi-hat ability. Take off your purchasing hat, put on your personnel hat, your sales hat or whatever it might be.

In stage one, you must identify your market. For example, what is a small CPA firm's marketplace? A recent survey asked chief executive officers of small companies what they

*"The third stage is a very difficult one for entrepreneurs, and it's here that a lot of them drop out. It's at this stage that you lose flexibility."*

wanted from their CPAs. The answer was they want the CPA as an advisor and a consultant to the business. As a CPA to a small business you become a part of the support system for the entrepreneur. The person that he can talk to, a source, a reference, someone to bounce things off of. Starting your own company can be lonely.

What is the best definition of a small business? People have tried to define it by volume, number of employees, etc., but I think a real functional definition of a small businessperson is someone who has to make most of the decisions himself. In this first stage, the important thing is to manage your time and what limited resources you have. You really have to focus yourself on your main area. Other problems in other areas have to be taken care of with a bandaid.

Now stage two is an interesting stage — that's probably where my company is right now. Stage two is where you start to make the transition from a multi-hat entrepreneur to multi-manager. Managers at this level are "hands on" people. You don't have to have a heavy investment in systems because you've got people there who started out with the business and can override the system when it is necessary. When there's a question they know the answer. They don't have to refer to a policy memo or to someone else on the staff, because they can see the complete business.

Manufacturing Data Systems (which has gone from roughly 5 million in sales to about 75 million in sales) took the approach of having good hands-on managers at this stage. They hired highly qualified

people, motivated them with options and let them grow with the business. That was a very successful strategy for a company that was on a really fast track. In the second stage there is no place for a manager who is going to sit down at a clean desk and manage. They must be people who roll up their sleeves, pick up a pencil or whatever it is and do the work.

When you get on to the third stage in the growth of a company, that's where you really can be a delegator, and where you have a large number of people in the system. The system then has to have its own momentum — has to be good, because at this level there is no manual override. If you are off on the wrong track you can go a long way down the road before the problem gets big enough for someone to notice.

This third stage is a very difficult one for entrepreneurs, and it's here that a lot of entrepreneurs drop out of the system. It's at this stage that you lose the flexibility. Product innovation is something that really needs care at this level, because you tend to lose it. I was in a large organization of 20,000 employees for 15 years. Towards the end I felt that the company way was the only acceptable way. That's great — but if you are an entrepreneur, it's not where you want to be.

It is important to recognize what stage of growth your company is in so that you can match your management approach to the stage. Nothing is more detrimental to a business's growth than a sophisticated stage three answer to your stage one start-up problem. I believe that if you correctly match your management approach, you will enhance your growth.

# Q. & A.

*Q. (to Monaghan): Is there any one thing that kept you going after you went broke so many times?*

Monaghan: Well, I really didn't have any choices. It was the only business I knew, and I felt that no matter how long it took I could eventually get the bills paid off and not make the same mistakes next time. And I love this business. It's something I feel I know better than anybody else and that this system — this concept — it looks pretty simple to you but it's something that came pretty much right out of my mind and that of my employees. It wasn't something you could find anywhere else, and that gives you a certain sense of ownership that you still have confidence in. I have no doubt that we can continue the same rate of growth — 50% a year — for another five years. And to cash in doesn't make any sense to me. It's too much fun.

*Q. (to all three): What problems do you think entrepreneurs will face in the future?*

A. (Alger): In my business the largest problem will be the speed of change, and the need to be very decisive and to know more than you had to know 15 years ago. The stock markets are trickier than they were 15 years ago. There's a good possibility that we could get into a good trend market which could last 10 years — in fact, we're forecasting one, but nonetheless the competitive demands to be superior are going to be very intense, and the entrepreneur is going to have to be very decisive and very productive in his thinking. It's going to be a trying time, I think.

A. (Rubin): I think the biggest problem for our audience is perhaps going to be one of timing. They are not part of our generation who were depression babies who came to fruition without a lot of competition. We didn't have the baby boom generation with us shouldering up to

the trough. Timing is going to be very important. If I'd started my business in '79 I don't think I'd be here discussing it today.

A. (Monaghan): In my business the timing is better than ever for getting into business. There are businesses all over that are mismanaged and going broke and all they need is somebody who can give a little bit of energy and thinking and they can make a success out of it. Many businessmen might be great when they get started, but I've seen our franchisees over the years. When they start out they're excited — they're scared of failure so they work their tails off and they're really enthusiastic about their business, but after 6 or 8 months when they're starting to make good money they change. They start going out and buying a new BMW, a house, new furniture, new clothes and of course if you do that you can't put an apron on and work in the store any more and the next thing you know the business is gone — the profits are gone and they're in trouble. The money comes from satisfying the customer, and you'd be amazed how little credit people give for their success to the customer. There's all kinds of businesses for sale — they might want 10 or 20 or \$30,000 down, but they'll take nothing down — just convince them that you can make it work. It's a heck of a lot better doing it that way than starting from scratch with all the red tape and everything.

*Q. (to A Iger): Please expand on what you meant by "creating thought" in your industry.*

Alger: I made the point that to be a success you had to develop knowledge of your business to such a degree that you could create thought in that business. A perfect example would be Tom. He got to know his business extremely well and perceived that the key was delivery —

a simple store and low overhead, so that he can process his pizzas and get them out the door and delivered in 30 minutes. Every great business success is more than hard work — you have to have an idea — and it's got to be the right idea, and then you apply the hard work and all that other good stuff. It's very important that you can create thought in your industry so that you can adjust to change when it occurs, and do it with confidence, so you're constantly moving ahead. That way you're always on the attack, you're never defensive.

*Q. You've all talked about how you have to have a passion for the business. What do you do when you have to delegate?*

A. (Monaghan): Delegation is something I think I do pretty well. I'm willing to let my people make mistakes just like I made mistakes. My philosophy on that is hire the best people you can hire and get out of their way. It usually works — and if they're no good they'll soon hang themselves, and you'll find out whether you've got the right person or not.

*Q. Do you think of yourself as businessmen — in the sense that you could go into a business and run it? Or are you specialized?*

A. (Rubin): I think you have to know the business, especially at the start-up or the second stage level — there's no room in here for expensive staff with the right answers — you have to know the business — when the reverses come you have to be able to dig in and get things moving again.

*Q. (to Alger): How much of your thinking was innovative? Or did you take an idea already existing and make it as good as it could be?*

Alger: People may copy you, but they don't know why you're doing what you're doing. To think creatively about your business means that you've figured out in advance all the things that can possibly go wrong, so when they do, you don't have to think too much about how to respond to them. Other people — the ones who are just copying you — may become unglued. Most successful companies I think are those that understand what they're doing and keep improving that basic product.

# *A Matter of Money*

*Why isn't more money being invested in new or developing companies in Michigan! And what can be done about it! Professor Brophy's Growth Capital Symposium is helping.*

Not so long ago, when Michigan's economy seemed solid and healthy, David Brophy, associate professor of finance, asked a simple question: Why is it that in Michigan we spawn so many technology based companies, and yet so few of them develop into large successful businesses?

To answer this question, Brophy compared the Detroit-Ann Arbor area with two spots generally considered to be hotbeds of entrepreneurial activity — Palo Alto-San Francisco and Cambridge-Boston. The resulting study, entitled "A Study of Venture Capital Investment: The Financing of New, Technology-Based Firms" found that a major difference between those two areas and Michigan was money, and lots of it. Companies in the Boston or the Palo Alto area had available to them millions of dollars from a variety of sources to nurture all stages of a company's development. This included start-up money, venture capital, expansion capital, and finally, access to public markets for companies that wanted to go public, as well as professional investment banking services for companies interested in mergers and acquisitions. Along with the

availability of money, both localities also sported highly developed networks of professionals — venture capitalists, financial advisors, lawyers, accountants and so on — who wielded the knowledge and expertise necessary to turn a good idea into a thriving, multi-million dollar business.

Turning to Michigan, Brophy found a very different story. Even though the state is the sixth largest in the country, and even though there is a great deal of wealth here, precious little of it was being invested in new or developing companies in the state. Moreover, networks of professionals which support entrepreneurs and which should naturally be present in a state of this size, were nonexistent. The lack of available financing dissuaded companies from locating in the state, forced who-knows-how-many Michigan entrepreneurs to leave, and impeded the growth of companies already here.

One way to remedy this situation, thought Brophy, would be to organize a symposium designed to bring together bankers, investors, and entrepreneurs — meetings that would serve as a forum through which Michigan entrepreneurs could present their companies to venture capitalists from around the country. The first annual Growth Capital

Symposium, as it was called, took place in 1980, and has been repeated in 1981 and 1982. It is co-sponsored by the Business School and the U-M's Institute of Science and Technology. In addition to the formal program, the two-day Symposium allows ample opportunity for private meetings and informal discussion. This is where the real action takes place: deals are arranged, contacts are made, and new companies are given birth.

"The first year," says Brophy, "we had about 100 people; last year we had 125 and this year we had 280. Now the Symposium attracts investors from all over the country, and there are more companies that want to present than there are time slots to present them. The other aspect of the Symposium is that we provide an educational experience. In this year's program, for example, we had three workshops run by highly competent people from major law firms, major accounting firms, and major venture capital firms. So the Symposium has become a resource, not only for the person who has a company and is trying to raise money, but for the person who is one step back, thinking about the potential. So we are providing both an educational service and a functional service."

The Symposium is only one

aspect of Brophy's interest in this subject. He has also done extensive research on venture capital and entrepreneurship, and is the author of numerous articles on the subject as well as a book, entitled, "Finance, Entrepreneurship and Economic Development," published by the Institute of Science and Technology of the University of Michigan. In addition, the 1982 Venture Capital Paper Award, given by the National Association of Small Business Investment Companies (NASBIC) was presented to Brophy and his co-authors, Edwin Amonsens and Philip Bontrager, for their paper, "Analysis of Structuring and Pricing of Venture Investment Proposals." This is the second year Brophy has won this award. Last year his paper, entitled "Venture Capital, 1981" won the competition. The award includes a check for \$1,000 to the University, plus appropriate certificates for the author(s) of the winning paper. The prize money has become the seed capital of the Venture Capital Research Fund which supports student research activity and case writing in the venture capital area.

In discussing his research and the development of the Symposium, Brophy points out that by providing an environment in which our own people will generate companies and these companies will develop, we automatically nurture an environment that will be attractive to companies in other states. "That's where I think our energies should be going," he says. "A recent study by the Joint Economic Committee shows the midwest to be best positioned among regions for the growth of technology-based firms. To realize this potential we must provide an environment which will nurture such activity. We must orient our universities in this direction, increase the availability of technically trained labor, reduce the impact of taxes and social welfare costs, and maintain a high quality of life in our state. Along with these, we must develop a financial community which is structurally and operationally capable of providing for local financing needs."

*"A recent study shows the midwest to be best positioned among regions for the growth of technology based firms."*

To understand the difference between an environment that encourages growth and one that doesn't, let's compare the cases of two hypothetical entrepreneurs — Stanley Smith of Ann Arbor and Joshua Jones of Palo Alto — whose stories occurred before the Symposium was organized. Let's say that both people are electronics geniuses and inveterate inventors, and both have recently made technological breakthroughs which have strong commercial potential. Each has developed what he thinks is a marketable product. From this point on their stories differ as much as light and dark.

Smith of Ann Arbor walks into the biggest law firm in Michigan and says, "I've developed a product that will revolutionize the assembly line, and I want to start a company." After Smith renders the details, John Doe the attorney says, "An electronics company, huh? Well, we're a big firm. We do labor law, divorces, etc. — but start-ups? We don't do those."

Smith asks if another firm could be recommended. "I have no idea," says Doe. "Have you tried the yellow pages?"

A month later, Smith finds a lawyer willing to struggle through the start-up in exchange for payment somewhere down the road. Unfortunately, this lawyer has never done a start-up, has no connections in the financial community, and knows nothing of the electronics market.

Next, Smith looks for money. Having devoted most of his adult life to electronics research, he is not schooled in the ways of finance. He calls on the vice president of a bank.

"Good morning, Mr. Smith,

What can I do for you?" says the vice president.

"My associates and I have just formed a company that can produce a device that will revolutionize the assembly line. All we need is some money to get the thing going," says Smith confidently.

"Ideas are not collateral in the banking business, Mr. Smith," says the vice president. "I'm afraid I can't help you."

"Well, can you suggest who I could go to for this kind of financing?" asks Smith.

"I really don't know," says Mr. Vice President.

Smith, disheartened and confused, tries several banks in Michigan with similar results. Then he hears that a millionaire friend of a friend invests in new companies all the time. A meeting is arranged. Smith sees the millionaire and explains his situation.

"Mr. Smith," says the millionaire, "your product looks good. I could see making an investment, but quite frankly, all my investing is done through my investment counselor. If you could talk to him . . ."

"Where is he?" says Smith.

"In Boston," explains the millionaire, "but he'll be passing through here in about a month, and I'll arrange a meeting."

A month later, after meeting with Smith, the investment counselor calls Mr. Millionaire to say, "I've got tons of solid investments for you here in my own backyard in Boston. What do we need Smith for? But I told Smith what he needs is a venture capitalist, and I gave him a list of some of the venture capitalists around the country."

From that list of venture capital firms, Smith finds one that is in Michigan. He talks with that firm, which makes, on the average, about six investments a year. The firm says to Smith, "Your idea is interesting, but we can't do anything for you this year. Keep in touch." (Keep in mind that this example dates from before the Venture Capital Symposiums were organized. The picture has improved since then.)

With production plans still on the drawing board, his partners becoming disgruntled, and every



Professor Brophy (right) talks with two members of Chicago venture capital firms at a reception held during a recent Growth Capital Symposium. They are Brian Cressey, left, partner in Colder, Thoma and Company; and David Dullum, center, of Frontenac Company. Other pictures on this page were also taken at that reception. The next Symposium is scheduled for March 31 and April 1, 1983 in Ann Arbor.



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 Dr. Howard Diamond, president of Diamond Electro-Tech, Inc. of Ann Arbor (right) and Dr. Rex DAgostino, president of University Micro Research Labs, Inc. of Ann Arbor. Right, Jeff Watts, MBA '75, came from Los Angeles to attend the Growth Capital Symposium. He is a member of the Union Venture Corporation there.



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*There are six venture capital firms currently in operation in Michigan, and five more in the process of forming. Two years ago there were only two.*

day bringing another company closer to duplicating his product, Smith decides to appeal to venture capitalists in other states. Over the next six months and at his own expense, he flies to Boston, New York, San Francisco and Dallas. His search for capital is costly and time consuming. After one year, he has spent his life's savings, is frustrated, and not much further than when he started.

Now let's consider the experience of Jones of San Francisco. When he went to a big law firm there, the lawyer said to him. "So you want to start an electronics company. Well, I've read your prospectus, and I think it's impressive. You've come to the right place. I did a dozen start-ups last year for companies very similar to yours. I know the electronics market pretty well, and I can put you in touch with a couple of venture capitalists who specialize in products of your type. I can recommend an excellent CPA, and here's the name of a financial advisor who can help you protect your assets."

One year later, Jones's company employs 25 people, is taking orders, and is lining up expansion capital. This is what Brophy means when he talks about an "environment for growth." And such an environment is more than academic, especially in Michigan, where jobs are scarce. High technology industries in Massachusetts employ 250,000 people, one-third of the state manufacturing labor force, and had sales last year of \$19.5 billion, by an estimate of the Massachusetts High Technology Council. Electronics plants in the Silicon Valley employ 161,000 people, according to a study by the Crocker National Bank of San Francisco, and had sales of more than \$10 billion in 1981. From 1975 through 1980, electronics-related jobs in Silicon Valley soared 93

percent! It is certainly no coincidence that from 1970 to 1980, only Massachusetts and California had a positive inflow of venture capital, according to Stanley E. Pratt, editor of *Venture Capital Journal*. During that decade, he said, California accounted for 28 percent of the nation's venture capital investments (though it had only 15 V2 of America's venture capital resources), while Massachusetts attracted 15% of the country's venture capital activity with only 10% of its resources.

Venture capital bankers say it is much harder to arrange deals in the newer areas than in Massachusetts or California. "I did a deal in Columbus, Ohio, last year," says Lawrence G. Mohr, a partner in Hembrecht & Quist, a leading San Francisco venture capital company, "but it was agony because the attorney there didn't know what venture capital was all about and kept worrying about the SEC."

Brophy explains that the creation of an "environment for growth" means the development and nurturing of a network of professionals who cater to entrepreneurs, and explains that such a network can be divided into four categories. First are those firms directly involved in the investment of venture capital funds. In effect, they have a sign on their door saying, "Venture Capital Available Here." They exist in partnership form, or in the form of small business investment companies chartered by the SBA. Michigan is modestly represented in this business but is gaining ground rapidly. New funds are being formed, and membership in the Michigan Venture Capital Forum is increasing steadily.

Category two includes the set of financial institutions to whom venture capital is parenthetical to their work. It's not something they do every day, but if you ask them about

it, they know what you're talking about. This category includes banks, life insurance companies, pension funds, brokerage houses. They also would be likely to know people in category one and might say to the entrepreneur, "Don't go away, let me call my friend the venture capitalist." They might say to themselves, "Aha, here's the kind of company that's not bankable right now, but I'm not going to slam the door on it. I know a vehicle that this guy needs and I'm going to see that he gets it, because, for example, if I'm a banker, and I can find the venture capital to get the equity in place for that company, there's a working capital loan down the road for me, or there are bank deposits, or whatever." Says Brophy, "That's how you grow businesses. In Michigan, however, that attitude has not been common. In fairness we should point out that if there are no institutions in category one in this state, the category two people are not going to be able to refer entrepreneurs. If they can't look down the hall or across the street, they're going to have to refer the entrepreneur to New York or Chicago or wherever for venture capital."

The third category is that of the skilled service provider; a lawyer, an accountant, a financial advisor, a tax expert — people who provide professional services to businesses. In a place where a great deal of entrepreneurial activity is happening, category three people know each other. A visit to a lawyer may put the entrepreneur off and running, because that lawyer may say to himself, "my success ratio with this kind of company over the years is such that I am willing to defer some payment on the front end to get this company going because I know I will then be its attorney for life." In addition, that lawyer may very well say, "I know a CPA we can get to do the tax work, and a personal financial advisor as well." There's a sort of loop mechanism between the categories, in the sense that, for example, if the third category exists, then the first two categories also exist, and if the first one doesn't exist, it's tougher for the second two to exist.

*Continued on page 21*



# When Diane Brown, MBA '80, joined GPHPX two v pars a 00 slip was flip 4 / n n PTTTTIIIOVPP Siitirp nhpti trip pomtiativ has grown 500% . . .

The people who joined Genex during the early days still have an esprit de corps," says Diane Brown, MBA '80, now Director of Technology Marketing for the company. "When asked how long we have been at Genex, we respond by giving our employee number. When I started here in May, 1980 as assistant to the vice president for commercial development, I was employee number 42. Now Genex has over 200 people and I no longer know everyone's name or face."

Genex, which is headquartered in Rockville, Md., was established in 1977 to apply recombinant DNA technology to the development of commercial products and processes. The years 1976-78 saw several genetic engineering companies being founded, but the real excitement began in 1980 with two happenings. First, the announcements came of the first human therapeutic proteins (e.g., interferon and insulin) made in a bacteria which proved that genetic engineering is feasible. Second, the Supreme Court ruled that a "new" living organism developed in a laboratory could be patented under federal law. With these two occurrences companies in the industrial world began to take notice of biotechnology and to ask what this new technology could do for them.

Diane, who holds a master's degree in molecular genetics from Johns Hopkins besides her MBA, says that answering this question is a big part of her job. "Potential applications of genetic engineering and biotechnology can have a major impact on the pharmaceutical, chemical, energy, agriculture, and



*Diane Brown holds a master's degree in molecular genetics from Johns Hopkins besides her MBA. She is pictured in her office at Genex.*

food industries," she explains. "For each industry we analyze their products and processes to see if biotechnology has a competitive edge when compared to standard technology. In some cases it is not the appropriate technology, but in many cases it has a clear advantage. We then convince industry to undertake the necessary research and development to bring the biotechnology-based process into commercial reality."

On a typical day, Diane might work on determining which corporations would be likely candidates for a research contract (Genex does business in the U.S., Europe, Japan, South Africa and Canada) and finding out the key people to talk to at these corporations ("We try to talk to vice presidents and presidents,"

she says, "because only they can sign a million dollar check.") She might meet with clients to explain the potential applications of biotechnology and to discuss production economics. Hopefully, she can show them how Genex can help them successfully enter the area of biotechnology, and persuade them to buy a research contract from the company. "I spend a lot of time on the phone, in meetings, writing letters, reading trade journals, and acting as a conduit for information between the clients and Genex's scientists," she says, adding that her job has involved a good deal of travel. She goes to Europe, Japan and throughout the U.S. on marketing trips, and once was given 24 hours' notice to go to Caracas, Venezuela.

"Working in a field that changes

and grows so quickly is exciting," says Diane, "but as an individual you have to be flexible, able to work with incomplete data, willing to try just about anything once, and have the ability to remain optimistic even when 'doubting Thomases' try to deflate your enthusiasm."

For the industry in general, Diane explains, properly managing the flow of new scientific information is critical for future planning. Scientific developments are happening so quickly that a process or technique may be obsolete before it is even commercialized. "We have to factor this in when predicting our future commercial plans," she says.

Man has engaged in crude but effective forms of genetic engineering for thousands of years. The result has been organisms ranging from improved strains of wheat and corn, to Siamese cats and Russian wolfhounds. But the process is slow; it depends on infrequent, random events that cannot be directed; and the combinations of genes that can be tested are limited to those that can be assembled by naturally occurring genetic mechanisms, which in general allow for exchange of genes only between organisms of the same species. All these limitations are substantially eliminated by the new genetic engineering methodologies that have been developed during the past decade.

The universality of the genetic code and of DNA as the genetic material allows the entire repertoire of genetic information in nature to be manipulated in a rapid, directed manner by the genetic engineer. The immediate practical consequence of this newly developed methodology is that simple microorganisms such as bacteria can be turned into mini-factories to produce many proteins from a number of different organisms. In the long term, it is theoretically practicable to produce virtually any protein from any organism.

Competition in the genetic engineering industry is intense, says Diane. Genex believes it was the third genetic engineering research and development company established

that focused on recombinant DNA technology, and that currently it is the third or fourth largest of such companies in terms of the number of employees. Since the company's formation in 1977, between 100 and 200 biotechnology firms have been organized worldwide. In addition, a number of major firms in the pharmaceutical, chemical, energy, agricultural, food processing, and pollution control industries have also entered the field through internal expansion, joint ventures, acquisitions, or through contracts with universities. They have committed significant resources to genetic technology research and development applicable to their respective product areas. One aspect of Genex's business strategy is to perform research for such major firms that might lead to joint efforts to produce and market resulting products. Although currently its major source of revenue comes from research contracts, Genex is also working on becoming a manufacturer of its own proprietary products. Work under research contracts at Genex is divided into discrete phases, explains Diane, and if the company does not achieve a specific technical milestone by the end of each phase, the customer has the option to terminate the agreement.

To date, however, Genex, has successfully accomplished all interim milestones in its contracts. And the company's revenues have grown. Starting from zero in 1977, they increased to \$23,625 in 1978, to \$255,112 in 1979, to \$2,322,609 in 1980, to \$5,661,673 in 1981 and \$2,836,086 for the first five months of 1982. Here are some examples of the research Genex has engaged in: a contract with Bristol-Myers Company to develop genetically engineered strains of microorganisms that produce leukocyte (alpha) and fibroblast (beta) interferons, (interferons are believed to have potential therapeutic value for the treatment of certain viral diseases and some types of cancer); a contract with a Japanese company to produce a genetically modified strain of *E. coli* which produced L-tryptophan, an amino acid; a contract with Koppers

Company, Inc. to develop a genetically engineered strain of bacteria capable of converting certain coal tar fraction feedstocks to a phenolic compound at high rates and end product concentrations; contracts with a Japanese company and a Swedish company to develop a microbial strain that produces human serum albumin, the predominant protein in human blood; and a contract with another Japanese company to develop a microbial strain that produces human urokinase, which is used to treat blood clots in the lungs.

Diane says the most difficult part of her job is to find the right combination of client, project, technical feasibility, process economics, potential market, people, and money that allows Genex to execute a research agreement. "The most satisfying part of the job," she says, "is when all these parameters fall into place and we sign a multimillion dollar contract."

Management problems associated with the rapid growth of Genex arise mostly from personnel and facility planning. Explains Diane, "The leadtime for hiring one qualified scientist is several months. Think about trying to interview and hire two hundred in a short time frame! Add to this the market pressure on salaries, and personnel policies become a major topic of discussion. To go along with the increase in personnel it is necessary to have the facilities and equipment in place. We started out in 1977 in only a small office. Now we have 8.1,000 square feet of laboratories, pilot plant, and offices, as well as approximately 40,000 square feet of undeveloped space and 10 acres of land ready for the next expansion. We have become very adept at working with jack hammers pounding outside the office, and many people have changed locations four times in two years."

While we were working with Diane on this story, the announcement came that Genex has gone public with an offering of two million shares. The company grew from 42 to 200 employees in two years. No telling what growth is still ahead!

When James Tann joined National Semiconductor

MBA '67, or in 1979

annual sales total

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Now they are over \$1 billion

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James Tann, MBA '67, joined National Semiconductor (where he is currently Director of Marketing for the Module Products Group) in 1979 when the company's annual sales were \$400 million. Four years later, National has grown to over \$1 billion in annual sales, and the growth of Jim's department has exploded. During 1982, the module products group grew by over 100% in the U.S. over total growth in 1981. "Our plan," says Jim, "is to grow 40% by the end of 1983, and at present, we are ahead of schedule, even during these tough economic times. There is *nothing* like the semiconductor industry, at least through the 1980s."

In the late 1960s, when Jim was working toward completion of his BSE in physics and math and his MBA, he never received a formal course in ICs (integrated circuits) because this technology was too new and was developing too quickly. "While I was at school," he says, "manufacturing costs of ICs were rapidly decreasing and the market for ICs was exploding. All the time new applications for ICs were being developed and the semiconductor manufacturers were running as fast as they could to keep up with the pace of technology."

It has been a hectic pace. If the efficiency and cost of the automobile had improved in the past 20 years at the same rate as microelectronics, a Rolls Royce would now cost \$2.75, get three million miles per gallon, and would deliver enough power to drive the Queen Elizabeth.



James Tann is currently Director of Marketing for the Module Products Group at National Semiconductor.

As Jim points out, the key to an integrated circuit is *density* — that is, the number of components that can be built onto one tiny silicon chip. From 1960 to 1980, the number grew from less than 10 to more than 100,000 per chip. This increase in density was the primary force (along with the associated reduced cost and increased performance), that put computers into everyday use in business, industry and the home. This is the revolution. A computer can now be a large stand-alone system, or a quarter-inch square silicon chip.

"National Semiconductor early-on made the decision to fill a market niche as a broad-line semiconductor supplier," says Jim. "To accomplish this, and to keep pace with the rapid changes in technology, the company organized itself by structuring a number of businesses within the company designed to attack different markets within the industry. National maintains this structure today. In this way, it concentrates on the IC business and is also active in the systems business.

"In order to manage our exceptional growth," Jim continues, "the company is organized to have profit and loss centers at the lowest possible levels. These centers are generally structured to control engineering, wafer fabrication, test engineering, product and process engineering, accounting and product marketing. The sales force, finance, large-account marketing, R and D, and general administration are kept separate.

"With this somewhat complex organization," explains Jim, "National has been able to effectively manage growth by fostering a number of small entities designed to make immediate decisions at low organizational levels."

Twenty years ago, National Semiconductor, like many other companies, was headquartered on the East Coast. But in 1966, it acquired a small integrated circuit company in Santa Clara called Molectro. Keeping its transistor manufacturing operations at the original site in Dansbury,

Connecticut, the company moved its headquarters to California. Including NSC, the number of electronics companies to come to the Valley in 1966 could be counted on one hand.

The company grew quickly, adding to the small Molectro offices in 1969 a two-story, 110,000 square-foot structure on its own Semiconductor Drive. Between 1966 and 1969, nearly 30 other companies joined the ranks.

In 1974, despite the industry's first major recession, National Semiconductor completed an even larger two-story building to make way for more production and engineering facilities. It was during this decade, with the microelectronics revolution in full swing, that literally hundreds of companies emerged to share in the prosperity. And by then, NSC was the largest semiconductor manufacturer in the Valley.

The company continued to grow at a tremendous rate, with factories being built in Salt Lake City, Utah; Scotland; and the Far East. In 1979, yet another building in the company's Santa Clara complex was completed. It encompasses over 315,000 square feet (the size of three football fields) and houses the engineering facilities of several different product lines; nearly all the marketing groups; and the corporate staff.

Today, National Semiconductor Corporation is the leading broad-line manufacturer of a wide range of integrated circuits (ICs) in the major technology areas including linear, digital, logic, hybrid, memory, optoelectronics, board-level computers, transistors and modules. National's microcomputer systems division develops and markets microprocessor, microcomputer and memory systems. With 31 plants in nine countries, the company also produces systems products including point-of-sale systems and IBM-compatible computer systems.

"The key qualifications that help us manage this kind of growth," says Jim "are flexibility, aggressiveness, team work and the elimination of bureaucratic barriers. One of the advantages to such large and rapid

growth," he adds thoughtfully, "is that although there may be a limited amount of resources, there are always great opportunities for people to pursue personal and team opportunities. Lines of communication at National are direct and fluid. As an example, during the past year I have not only had marketing responsibilities, but I have also had design-engineering, test-engineering and pilot-line responsibilities. Over the next few months, I plan to eliminate some of these burdensome responsibilities by adding new personnel or promoting from within, a policy at National. Because of the growth, my greatest thrills are preparing sound plans and exceeding them; watching people grow into positions at all levels that they themselves 6 months before considered too difficult; and grasping the importance of a new technology as applied to innovative opportunities."

"The major difficulty in managing in this type of structure," says Jim, "is to find enough good people and have enough time to train individuals to accept rapidly-increasing responsibilities. Because of our growth, we all have a tendency to exceed our ability to respond, so we must constantly be on guard to avoid the pitfalls of over-committing. In this mode, important details are surely missed, and it is imperative to be able to rely on people who report to me."

Jim described for us a typical day — choosing at random a day in August, 1982. He began with an early morning meeting with a major supplier to solidify a substantial increase in IC supply for a new product that had just been introduced. At that meeting they worked out details and also began negotiations for a second-source agreement with the same company. Such agreements, says Jim, are common in the industry and provide the customers with alternate sources for the ICs they depend upon to manufacture their own products. Then he went to visit a customer and closed a \$5 million order for 1983. Returning from that visit, he reviewed the mail and handled

telephone calls. He then held a program review on a new custom product where some technical difficulties had developed, and discussed a strategy for communication with the customer. By then it was lunchtime.

After lunch, he participated in another program review where a specification waiver from the customer was required. This was negotiated with the customer by telephone. The rest of the day was spent reviewing mail, approving two major price quotes, analyzing pilot-line performance, reviewing the forecast and profit/loss results for the previous month and reviewing and commenting on a licensing agreement with a company in France. "Since we are on the west coast," he says, "from 3 to 6 p.m. is the best time to get paper work completed, except for necessary calls to Australia and Hong Kong."

Commenting on semiconductors in the '80s, Jim says, "In the next 10 years, semiconductors will certainly be one of the most exciting fields to be in. Most of the major growth industries of the 1980s (computers, telecommunications, robotics, etc.) are all fundamentally based on semiconductors. Our challenge is to maximize profitable growth into these segments while retaining the flexibility to be able to identify and address new markets with yet-to-be-developed technologies. As we grow even larger, I'm sure some of our management flexibility will be reduced. Our challenge is to invent new methods and organizations to meet these future hurdles.

"I believe the major problem area for our industry is to remain competitive in a fundamental industry in a world-wide market. We must find ways to maintain our profitability to fund the major investments required to continue U.S. leadership. The approach to this challenge is not easy, but our strategies for the 1980s must reflect this complex problem.

"The only thing certain about the semiconductor industry," says Jim, "is that to be successful, one must manage 'change,' for the nature of semiconductors is to foster change."

## *A Matter of Money*

*Continued from Page 16*

The fourth category consists of individuals who have funds to invest in growth situations. In the normative model, there would be professional money managers — investment advisors — around for these people. But although Michigan has an enormous stock of wealth, the management of this wealth, for the most part, is done out of state. We are an exporter of capital. Although most of the wealth in Michigan was earned in an entrepreneurial way, the people who earned the money and the people who now hold it are separated by several generations. They don't have the entrepreneurial "zing." They're not looking for new things to invest their money in, but tend more to be passive holders of funds. Consequently this fourth category is not well developed in Michigan as yet. However, the Detroit Bank & Trust Co. and the National Bank of Detroit have established venture capital subsidiaries, and a new law allowing five percent of state pension funds to be invested in venture capital also has spurred the formation of some investment companies.

Brophy explains that this four-part network develops naturally as the availability of growth capital increases. And the Venture Capital Symposium is starting to show some results. People from Chicago and New York are coming to the Symposium, so when local accounting firms, law firms, bankers, etc. also come to the Symposium, they see whom they are sitting next to, and they want to exchange information so that the level and calibre of the service available in Michigan gets brought up to national standards. "When venture capital companies are in place, bankers will know where to send an entrepreneur and that will be factored more into their thinking," says Brophy, adding that attorneys and accountants are now more interested in giving better service to start-ups, because if they

don't, they know they'll be losing the business to out-of-state firms. A direct result of the Symposium in this regard is the formation of the Michigan Growth Capital Foundation, a non-profit organization devoted to improving the quantity and quality of these professional services available locally. The first meeting of this group was held in October, 1982, with 35 in attendance. Erwin Ziegelman and Professor Brophy are co-chairmen.

In the past several years, progress has certainly been made. At the 1982 Venture Capital Symposium eighteen firms were presented, and Brophy says that on the average, those firms received 12 follow up visits from venture capital investors. "At least nine of those 18 companies look like national class companies that are going to get their money and make their mark," he says. "We may have a long way to go, but I think we're now heading in the right direction." The fourth Venture Capital Symposium is scheduled for March 31 and April 1st in Ann Arbor. Anyone interested either in presenting a company or in buying or merging with a company should get in touch with Professor Brophy at (313) 764-7587. Those interested in attending just because they are interested in the field are also welcome.

Herbert Doan, the owner of Doan Resources, one of the best-known venture capital companies in Michigan, points out that it took California 30 years to get where they are, and it took Boston 20 years. "I think we could do it in 10 years," he says, "because we have the role models. It's a matter of how well we can build on our foundation."

There's no question that we are building. According to Brophy, there are six venture capital firms currently in operation in Michigan and five more in the process of forming, whereas two years ago there were only two.

Perhaps that says it all.

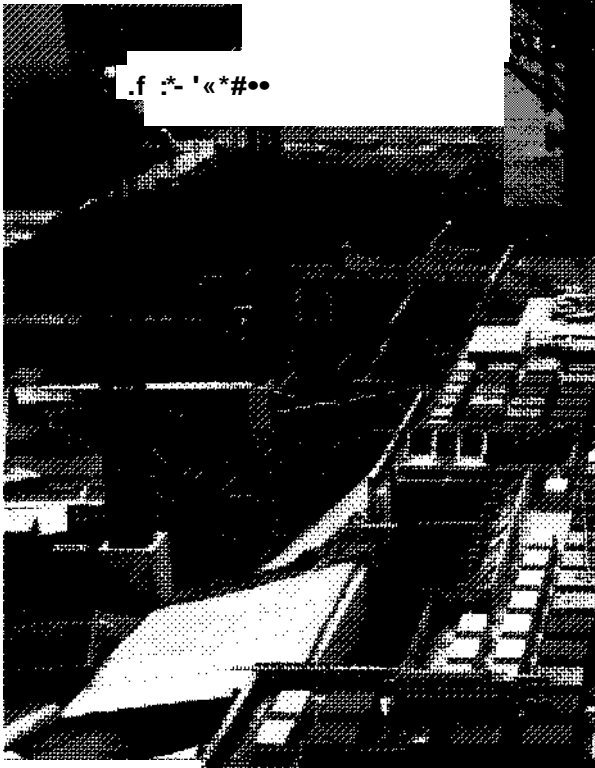
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No, this is not a waffle iron. It is the plywood base and fiber glas domes for the first floor concrete slab under the new library. The "waffle" appearance of the floor underside will be the ceilings for the library, classrooms, and office areas.

# *ere Two Thirds o/tk Way There!*

## *Capital Campaign is Right on Target*

Gifts and pledges of \$11 million have been given to the School since the Capital Campaign began, bringing us a long way toward our eventual \$15 million goal. Ninety four percent of the money raised so far has come from within Michigan; more than 50% of it from Michigan corporations and 33% from Michigan foundations. Says Dean Whitaker, "This not only show's a vote of confidence in the Business School and the University of Michigan, but equally, if not more important, in the future of the State's economy."

Corporations and foundations that have contributed major gifts over \$100,000 include: Burroughs Corporation; Chelsea Milling Company; Ex-Cell-O Corporation; Federal-Mogul Corporation; Michigan Bell Telephone Company; Steelcase Corporation; The Upjohn Company; The Towsley Foundation; McGregor Fund; Herrick Foundation, and the Whiting Foundation. Many Michigan banks have also shown their support through major gifts, including Comerica, Inc.; National Bank of Detroit; Manufacturers National Bank; Ann Arbor Trust Company; Ann Arbor Bank & Trust; Great Lakes Federal Savings, and National Bank &c Trust Company of Ann Arbor.

It's not only money that has been contributed by Michigan's banks. Many of their executive officers are

also volunteering their time and effort to the campaign. Among them are Donald R. Mandich, BBA '46, MBA '50, chairman, Comerica, Inc.; Louis G. Allen, BBA '51, MBA '56, chairman, Manufacturers National Bank; Joseph G. Conway, BBA '49, vice chairman, National Bank of Detroit; George H. Cress, BBA '58, president, Ann Arbor Trust Company, and David L. Hatfield, MBA '72, president of Fidelity Federal Savings of Kalamazoo.

Our encouraging progress is due in no small part to the concentrated campaign efforts being conducted in Ann Arbor and Kalamazoo. George Cress, chairman of the Ann Arbor area, is being assisted by a steering committee which includes Donald S. Chisholm, BBA '55, MBA '56, president of Ann Arbor Associates, Inc.; Howard J. Cooper, Jr., BBA '50, president of Howard Cooper Volkswagen, Inc., and Richard A. Hadler, BA '49, retired Hoover Universal executive. Over \$1.2 million has been raised to date in Ann Arbor.

Robert M. Brown, BSE '63, president of the Monroe Management Company, is chairing the Kalamazoo campaign effort. Helping him are vice-chairmen Donald R. Parfet, MBA '77, divisional controller of The Upjohn Company; Robert P. Kittredge, BBA '48, president of Fabri-Kal Corporation; David L. Hatfield, and

C. Andrew Kostrevagh, BBA '55, partner in Ernst & Whinney.

New York and Grand Rapids are targeted for the next concentrated efforts. The New York Primary Gifts campaign will be co-chaired by John R. Edman, BBA '50, MBA '51, vice president, General Motors Corporation, who is also serving as general chairman of the overall Business School campaign, and Vincent R. McLean, BBA '54, MBA '55, executive vice president and chief financial officer of Sperry Corporation. Robert L. Hooker, MBA '58, executive vice president of Transnational Motors, Inc. is in the process of putting together a campaign organization to assist him as chairman in Grand Rapids.

Meanwhile, the mild winter weather has made intensive work possible on the buildings, which are fast taking shape. As of late January, all below-grade column pads, foundation footings and walls for the library were complete as well as all the below grade utilities such as new water lines, sewers and utility tunnels. Electrical conduit and steel reinforcing for the first floor concrete slab of the library were finished, and the concrete floor itself is finished. In addition, six of sixteen first floor cement columns are in place, the site for the computer/executive education building has been excavated, and eight of fifteen cement pads for the building columns have been poured.

*An informal collection of items, including news of the faculty, of alumni, and of the school, and assorted other information, opinion or comment that we think will interest you,*

### W. Edwards Deming Speaks at B School on Productivity

Dr. W. Edwards Deming, internationally known authority on quality control and productivity, spoke October 28 at the Business School on the topic, "The Statistician's Job for Quality, Productivity, Competitive Position and Re-education of Unemployment."

His appearance was sponsored by the Ann Arbor Chapter of the American Statistical Association and the Business School.

Dr. Deming is the creator of the Deming Method of Statistical Quality Control. His techniques were adopted by many Japanese manufacturers in the 1950s and are currently receiving much attention in the United States.

Joseph M. Callahan, writing in *Automotive Industries* magazine, credits the Deming quality control program for much of the success of the Japanese automobile industry.

"Although the Deming approach originated in this country," Callahan said, "the Japanese began adopting it in the early 1950s and soon began converting their manufacturing system from one that produced some of the world's shoddiest products to one that was sweeping world markets with some of the best products."

Although U.S. production costs run much higher, Callahan concluded, "nevertheless, the Deming method has enormous potential for the U.S. auto industry because it offers the possibility of greatly improving both quality and productivity."



*Dr. W. Edwards Deming (left) is pictured at the reception which followed his talk at the Business School on "The Statistician's Job for Quality, Productivity, Competitive Position and Re-education of Unemployment." He is talking with Business School associate professor of statistics Roger Wright. Deming is internationally known for his approach to quality control and productivity.*

### DOR Publishes Monograph on Economic Policies in France from 1976-1981

A monograph written by W. Allen Spivey and entitled *Economic Policies in France 1976-1981: The Barre Program in a West European Perspective* has been published by the Division of Research.

The study analyzes the major features of the economic program of Prime Minister Raymond Barre — a program which was aimed principally at reducing the role of state intervention in the private sector and stabilizing the franc on foreign exchanges.

The study compares these features to approaches taken in other

industrialized countries in Europe as well as Japan and the United States. Extensive data on employment, unemployment, income, productivity, and other major problem clusters are presented. A more detailed examination is given to monetary policy, fiscal policy, and balance of payments problems; the French financial system is discussed and its impact on investment in France is also considered.

The book concludes with a chapter covering the first 9 months of the new Socialist government — which succeeded that of Barre in May 1981 — and which views policies of the new administration in the context of the inheritance from the Barre program.



## AT & T's Chairman Receives Business Leadership Award

Charles L. Brown, chairman of the board of American Telephone & Telegraph Co., received the 25th annual Business Leadership Award at ceremonies in Hale Auditorium December 8. He delivered the Business Leadership lecture on the topic, "The Breakup of the Bell System: A Personal Perspective."

The head of the world's largest business enterprise began working for the Bell System in 1939 as a 17-year-old cable installer. After graduation from the University of Virginia and naval service during World War II, he joined the AT&T long lines department and moved through a score of positions in 10 cities.

Brown was named president of Illinois Bell Telephone Co. in 1969 and AT&T executive vice president in 1974. He became vice chairman and chief financial officer in 1976, president in 1977, and chairman in 1979. He is presiding over the most eventful changes in AT&T's century-long history, changes marked by shifts from a regulated monopolistic environment to a nonregulated, competitive business world and expansion into a telecommunications system.

Brown is a trustee of Columbia Presbyterian Hospital, the Institute for Advanced Study, and Colonial Williamsburg Foundation. He is vice chairman of the Business Council and a member of the Business Roundtable, a former trustee of Loyola University, Lake Forest College, and the University of Chicago.

Speaking to a standing room only audience of faculty and students, Brown said AT & T's decision to accept the Justice Department's divestiture proposal was, in reality, a decision to "adapt our organization to the changed expectations of the American public."

Brown commented that the divestiture solution was "a painful one," adding that "to retain vertical integration and gain the freedom to follow our technology into new markets, we would have to lay on the chopping block our well-functioning



*Charles L. Brown, chairman of the board of AT & T, receives the 25th annual business leadership award from student council president Kenneth B. Kelly (left) and student council vice president William K. Creelman.*

nationwide partnership of companies providing total, end-to-end communications service."

Yet the Justice Department's solution — which included divestiture of the 22 operating telephone companies by early 1984 — had much in its favor, especially when compared with the alternatives, Brown said.

Among the points he cited were:

— "It would defuse the issue of Bell's alleged size and power.

— "It should remove concerns about Bell using revenues from monopoly services to subsidize competitive offerings.

— "It would remove any basis for long distance competitors' complaints about equal access to local phone networks.

— "It would enable Bell to retain its ability to manage a nationwide network as a single entity.

— "It would preserve the vital link between Bell's research and development unit, Bell Laboratories, and its manufacturing arm, Western Electric.

— "And it would remove the outmoded constraints of the 1956

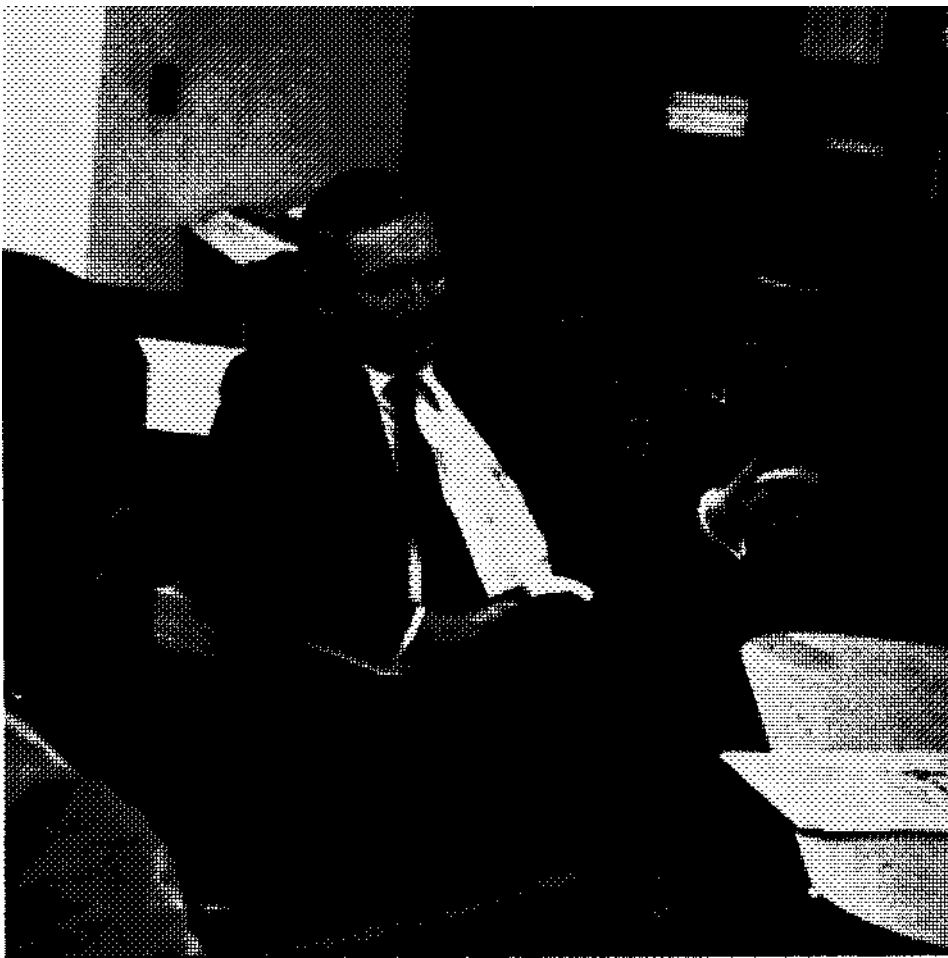
consent decree (between the government and AT&T) and permit Bell to use its technology in any market it chooses."

Since the decree was signed last January, it has been accepted with some modifications by U.S. District Judge Harold Greene — the judge in the antitrust case — and has been appealed by more than 20 parties. The appeals have been sent to the Supreme Court.

"We and the Justice Department both urged the Supreme Court to step in to expedite a higher court ruling. We anticipate the decree will stand up under higher court review," Brown said.

He acknowledged that Bell must now perform "the enormous and unprecedented task of disassembling the world's biggest business, the Bell System, and reassembling it in eight separate enterprises, seven of which are regional companies.

"Our job now is to adapt our corporate culture to changing times and different needs. The challenge will be to change our culture without changing the character of our business."



*John V. Roach, chairman and chief executive officer of Tandy Corporation, gave a talk in December at the Business School on "The Role of Microcomputers in the Business Information System." After his talk, he met informally with faculty and he is pictured here making a point during that discussion.*

## Marketing Department Receives Grant to Study the Office of the Future

A year-long study of the office of the future and its impact on the design and marketing of office furniture, is being conducted by marketing professors C. Merle Crawford and Martin R. Warshaw as co-directors.

The study is being done in conjunction with the Business School's Division of Research under a \$110,500 grant from the National Office Products Association. Also participating in the study is Dr. Robert Tank, research associate of the DOR and Professor Robert Marens, jointly with the School of Architecture and the Institute for Social Research.

The research team has reviewed the background documents of the industry, attended various conferences on the subject, and undertaken a series of exploratory field interviews. They then conducted eight focus group sessions, two each in New York, Atlanta, Dallas and Los Angeles. They are currently in the major phase of the study which is a six-month Delphi study of the leading minds in the office furniture area. Delphi calls for a series of mailings of questions about the future. Each wave of questions reflects the thoughts and ideas from predecessor waves, both in terms of sharpening issues, and in terms of introducing new issues. Delphi is a long-established technique in the world of research generally, but has not been applied extensively in the field of marketing. The research focus here is on the Delphi and how it works in the marketing setting.

The study will culminate with a complete report to the industry late next summer, and in a subsequent general-interest report on the office of the future written by the study staff and published through the Division of Research.

## Deputy Secretary of the Treasury Presents 16th McNaily Lecture

"The International Financial Scene: Crisis or Adjustment?" was the topic of the 16th annual McNaily lecture, presented Nov. 15 by R. T. McNamar, deputy secretary of the treasury.

McNamar, who is a 1963 graduate of the U-M Law School, was nominated to the treasury post by President Reagan in January, 1981, and thus became, at age 41, the youngest deputy secretary in the history of the Treasury Department.

McNamar has been executive vice president of the Beneficial Standard Corporation, a diversified financial services holding company in Los Angeles, for four years prior to his federal appointment. Earlier he had served as executive director of the Federal Trade Commission, 1973-77,

and also had been internal management consultant in 1973 for the Cost of Living Council and the Federal Energy Office.

In 1972-73 he was director of the Office of Case Management and Analysis for the Pay Board. From 1966 to 1972 McNamar worked as a management consultant with McKinsey & Co., Inc., in San Francisco, New York, and Amsterdam. In 1965-66 he was legal and financial counselor for Standard Oil Company of California. He is a member of the California and American Bar Associations and the Financial Executives Institute.

The McNaily Lecture is named in memory of former Regent William K. McNaily. Other speakers in the series have included Harvard economist James S. Duesenberry, Michigan economist Paul W. McCracken, humorist Richard Armour, and former Secretary of Defense Harold Brown.



A cause for celebration was the establishment of the Peat, Marwick, Mitchell & Company Professorship in Professional Accounting at the Business School. Pictured here are (left to right) Charles T. Smith, Jr., managing partner of the Detroit office of Peat, Marwick, Mitchell & Co.; Dean Gilbert R. Whitaker, Jr.; Robert W. Scharff partner in the firm's Detroit office; Wilbur K. Pierpont, professor emeritus of accounting; and U-M Regent Thomas A. Roach.

## Peat, Marwick, Mitchell & Co. Professorship in Accounting Established at School

University of Michigan Regents have approved the establishment of the Peat, Marwick, Mitchell & Co. Professorship in Professional Accounting at the Business School.

"This professorship is being established by the gifts of alumni of the School of Business Administration who are employed by Peat, Marwick, Mitchell & Co. and by a special matching grant from the Peat, Marwick, Mitchell Foundation," said Dean Gilbert R. Whitaker, Jr. "Gifts and pledges are in hand which will total a minimum of \$250,000.

"Peat, Marwick, Mitchell & Co. is an international public accounting firm with offices worldwide. This effort to establish the professorship was led by Charles T. Smith, Jr., managing partner, and Robert W. Scharff, partner, of the Detroit office of the firm."

Dean Whitaker added that holders of the professorship will be distinguished scholars who have made important research

contributions to the field of professional accounting. The holder of the professorship will also teach graduate and undergraduate courses in accounting.

The first Peat, Marwick, Mitchell & Co. Professor in Professional Accounting will be nominated later, he said. Holders of the professorship will be selected for three to five year terms which may be renewed.

"Income from the gift will be used to provide a stipend over base salary to the named professor, and will also provide limited funds to support research efforts. Any additional income will be used to partially support the salary of the professor," Dean Whitaker said.

## Accounting Faculty is Featured in Accounting Education News

Three stories in the November issue of *Accounting Education News* featured members of our accounting faculty.

Michael Maher, associate professor of accounting, was pictured as one of the two award winners for the 1982

Notable Contributions to Accounting Literature. The award was for his article, "The Impact of Regulation on Controls: Firms' Response to the Foreign Corrupt Practices Act," which appeared in the October, 1981 issue of *The Accounting Review*.

Then, a picture of past presidents of the American Accounting Association reminded us that of the 30 living past presidents, 13 are on our faculty now, or have taught here in the past, or earned their doctorates from here. The thirteen, along with their year of presidency, are: William A. Paton (1922); Herbert F. Taggart (1942); Robert L. Dixon (1949); Frank P. Smith (1954); C. A. Moyer (1957); Charles J. Gaa (1960); Walter G. Kell (1963); Robert F. Mautz (1965); Herbert E. Miller (1965-66); Sidney Davidson (1968-69); R. Lee Brummet (1974-75); Donald H. Skadden (1979-80), and Thomas R. Dyckman (1981-82).

Another picture in the magazine featured four members of the Accounting Hall of Fame, one of whom is Robert K. Mautz, professor of accounting and director of the Paton Accounting Center.

JOHN W. CHUCHIAN, BBA TC5# '48, MBA'49, is a self-employed CPA in Northridge, California and just moved into new and larger offices. He has two daughters majoring in accounting; Dawn will graduate from California State University, Northridge, in December '82 and Shauna is a junior at University of Southern California.

RICHARD M. SCROGGINS, BBA '55, is vice president of real estate and general services for American Express Company in New York. After a tour of Marine Corps duty he started in business with Shell Oil Company. Upon deciding on a corporate real estate career, he made typical job moves, upward and lateral, at Shell, Burroughs Corporation and Ford Motor Company, including a five year stint in London with Ford of Europe. His wife, Jeanne, an undergraduate of Beloit College, received her MA in education at U of M in '68. His daughter, Laura, received her BS in zoology in '82; daughter, Lisa, has a BA from Parsons School of Design; and daughter, Sarah, is an active nine year old. The family lives in Greenwich, Connecticut. He writes, "It is difficult to relate specifics of the Business School training to my career but the foundation laid by professors, such as Paul McCracken, certainly gave me a good understanding of business common sense."

FREDERICK C. HERTEL, BBA '56, is general manager of Creditanstalt Bankverein at their New York branch which is now being organized. Creditanstalt is headquartered in Vienna and is Austria's largest bank. He is also secretary of the Institute of Foreign Bankers in New York.

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WILLIAM A. HOCKENBERGER, BBA '59, has been elected a member of the Institute of Management Consultants and has been certified as a management consultant. Certification by the Institute signifies that an individual consulting practitioner meets the Institute's strict standards of technical competence, professional

experience and ethical conduct. The Institute's membership represents a significant proportion of the senior practitioners in the management consulting field. He is manager of Management Advisory Services for Deloitte, Haskins & Sells in Salt Lake City, Utah. His consulting practice includes providing client firms with

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*Vincent McLean, BBA '54, MBA '56, has been promoted to executive vice president, direct and chief financial officer of Sperry Corporation, effective January 1, 1981. He was formerly corporate vice president, finance, We are proud to say that he is also serving as co-chairman of the New York Primary Gifts effort of the Business School's (Capital Campaign.*

*Michael Losey, BBA '61, MBA '62, are promoted at Sperry Corporation*

Vincent R. McLean, BBA '54, MBA '56, has been promoted to executive vice president, direct and chief financial officer of Sperry Corporation, effective January 1, 1981. He was formerly corporate vice president, finance,

We are proud to say that he is also serving as co-chairman of the New York Primary Gifts effort of the Business School's (Capital Campaign.

Michael R. Losey, BBA '61, MBA '62, has been named staff vice president for compensation and employee benefits by the Sperry Corporation. He had been vice president for personnel at Sperry New Holland in Pennsylvania, the world's largest producer of specialized farm machinery. He will now be based at corporate headquarters in New York City.

consulting advice and assistance in areas of strategic planning, systems analysis and designs and human resource management. In addition, he is also treasurer of the Salt Lake City Chapter of The Planning Executives Institute.

LYNN R. EVANS, BBA '59, MBA '59, has been appointed divisional personnel director of the Saginaw Steering Gear Division of General Motors. Saginaw Steering Gear is a component manufacturing division of G.M. with plants in Saginaw, Michigan; Athens, Alabama; Cadiz, Spain; and London, England. Prior to the Saginaw assignment, Evans was personnel director of General Motors' Delco Moraine Division in Dayton, Ohio. He has been active in alumni and football recruiting affairs (he has not missed a home football game since 1953) and his oldest son, Rodger, is currently enrolled as a sophomore in the U of M Engineering School.

WILLIAM M. LUNDIN, BBA '60, retired from the U.S. Marine Corps as a Colonel, September 1, '70, and is now a real estate broker in southern California. He was in the engineering class of '42 and returned to U of M under the "Bootstrap" program in '59. (He joined the Marines in February, 1941.)

ROGER W. KALLOCK, MBA '61, is director of Cleveland Consulting Associates and was elected to the office of first vice

president of the National Council of Physical Distribution Management at the annual meeting attended by some 2200 distribution executives from all over the world. He has been involved in NCPDM activities for several years, serving as a past president of NCPDM's Cleveland Distribution Roundtable, as program chairman in 1979, as NCPDM's treasurer in 1981, and second vice president in 1982. NCPDM is a professional organization of some 3700 distribution management personnel who are located all over the world. "Physical distribution" is the term employed in manufacturing and commerce to describe the broad range of activities involved in planning, implementing and controlling the efficient flow of raw materials, in-process inventory and finished goods from point of origin to the point of consumption. These activities may include, but are not limited to, customer service, demand forecasting, distribution communications, inventory control, material handling, order processing, parts and service support, plant and warehouse site selection, procurement, packaging, return goods handling, salvage and scrap disposal, traffic and transportation, and warehousing and storage. Prior to co-founding Cleveland Consulting Associates, Roger held a variety of distribution positions at Procter & Gamble and served as a principal for the consulting firm of A. T. Kearney, Inc.

CHARLES L. TINKHAM, MBA '62, recently joined E. F. Hutten & Company, Inc. as assistant vice president, after 18 years with Sherman/American Express, to start a new office in Sun City West, a new retirement community. He writes, "Because of the aging of the American population with earlier and more affluent retirement, the retirement communities in the Southwest sun-belt should grow at a much more rapid rate than the U.S. as a whole. The phrase 'Go West young man' is more apt today than ever."

DAVID R. SMAL, BBA '63, MBA '63, is now a vice president of corporate systems for the Marriott Corporation in Bethesda, Maryland. Besides development of computer systems, David is responsible for office automation and the information center for the company, as well as for planning and administration for the Information Systems Department. Prior to joining Marriott in 1981, he was an assistant vice president at Amtrak and involved in the administration of the Northeast Corridor Improvement Project. David was employed in the consulting division of Arthur Andersen & Company for 14 years before joining Amtrak.

F. ABBOTT BROWN, JR., MBA '64, has been elected president and chief executive officer of Ann Arbor Circuits, Inc. The company manufactures a wide range of printed circuit boards for national distribution. Abbott, his wife Grace, '64, and four children live in Toledo, Ohio.

TADD C. SEITZ, BBA '63, MBA '64, has been appointed as executive vice president and chief operating officer of O. M. Scott & Sons Company. He will be responsible for marketing and sales, operations, and research and development at Scott. In addition, he will be responsible for W. Atlee Burpee Company, based in Warminster, Pennsylvania. Both Scott and Burpee are subsidiaries of International Telephone and

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7Mv «ifVM «#><?/?. Timothy Leedy, KBA '57, appeared in the December 1, 1982 issue of *The New York Times*.

"One reason for our success," R. Timothy Leedy, *Discover* magazine's advertising sales director, said the other day. "is that we tell it like it is."

AIKI indeed, there is an unglamorous totality to the *Time* Inc.-owned monthly's coolness. The December issue, for instance, features pictures of such subjects as "an array of Cuban tree snails," "Crossed tusks, trait of female elephants" and "Edward <.), Wilson with a cherished possession: an ant."

Yet there must be a lot of snail tusk ant fanciers out there. *Discover's* circulation has soared, making it, as a recent trade press advertisement exults, "America's largest science magazine" and "tops in the science field, with a circulation of 850,000."

Its January advertising rate base — the total circulation that the magazine guarantees to its advertisers — is 850,000, or 12 percent more than the 400,000 figure when the magazine began publication in October 1980.

Speaking not of the magazine's circulation figures, but its contents, Mr. Leedy said: "We don't fantasize things; some of the new science magazines have a tendency to do that; it's referred to as gee-whizjournalism."

The not-gee-whiz approach, he suggested, has brought rich rewards. Advertising revenues for 1982 will be 70 percent higher than for 1981, he estimated, and the total number of advertising pages will be up 18 percent.

By way of rough comparison, the Publishers Information Bureau calculates that the more than 100 magazines it follows had total advertising revenues, for the first 10 months of this year, that



R, Timothy Leedy in his office.

were 0 percent higher than during the same portion of 1981, and that the magazines had 2 percent fewer pages of advertising.

Mr. Leedy acknowledges that "Discover" is not profitable at the moment, but he said it is expected to turn the corner relatively soon. "We are definitely on target," he said, "We are living up to the expectations of the corporation."

Be that as it may, why is the magazine flourishing so? Why are advertisers so eager to have their messages appear in its pages, among the snails and the tusks?

"The audience you have here is rich baby boomers," Mr. Leedy said, "and that's a most desirable audience to have."

"If you look at your total audience," he reported, "you find that 40 percent of it is between the ages of 25 and 49 and making \$25,000 or more."

What are the members of that audience like? What do they want to give their children for Christmas, for instance?

The December issue has a

lavishly illustrated article. "Science Gifts for Christmas," which shows an enchanting little boy and girl playing a new parlor game called Blood Flow — a pastime that may not be every reader's cup of O positive,

Then we see the same little boy, a spendthrift, manhandling a \$2,200 telescope — which may cost 8 percent of Daddy's median income.

The little girl is thriftier. She appears in another photograph, assembling a \$185 model of a Stegosaurus dinosaur.

Such activism, Mr. Leedy indicated, is typical of "Discovery readers as well as their offspring." "We find," he reported, "that the reader is an active, curious kind of an individual, but he's not a scientist by any stretch of the imagination."

The actual subscribers, he reported, are about two-thirds male, with a median household income of about \$33,000 to \$34,000 and a median age of about 34. Almost 60 percent are college educated — "people who feel it's important to know what's going on in the world of science of technology."

With those demographics, you might think the biggest advertisers would be makers of personal computers and other consumer electronics items — especially now, with Christmas ahead. And you would be almost right.

Consumer electronics companies are indeed heavy *Discover* advertisers, Mr. Leedy said, but the heaviest are makers of automobiles, both home-grown and imported.

And so a handsome two-page Nissan ad runs next to a no-nonsense article about opening blocked arteries. Its chief illustration is a painting of an artery, enormously and rather gaudily magnified, with the unflinching caption: "Cutaway view of an artery being treated with the laser scope; the balloon behind the catheter tip is inflated to halt the flow of blood."

Cee whiz!

Telegraph Corporation. Tadd joined Scott in 1972 as marketing administration manager and was a director of corporate marketing prior to his appointment at Burpee in 1979 as assistant general manager and, subsequently, general manager and chief operating officer. He had been with General Foods Corporation prior to joining Scott. Scott is the nation's leading producer of lawn and turf products and has been in the business of growing things for more than 100 years.

5££ K JAMES W. WEITZEL, MBA  
0 \* J '65, has been appointed vice president of real estate operations for Great Midwest Corporation. Formerly vice president of marketing, Weitzel's responsibilities will include the leasing of space in Great Midwest Underground, sale of improved surface land, property management, security, and operation of the Foreign-Trade Zone. Jim has been with Great Midwest since 1978. He was formerly a vice president with the Manhattan Company in Troy, Michigan. A director of the boards of both the International Trade Club and Kansas City Foreign-Trade Zone, Inc., Weitzel is past president of Sales &c Marketing Executives of Kansas City, Inc. Great Midwest Corporation is a privately-owned company based in Kansas City, Missouri and is involved with the development of 2,200 acres of land located just east of the intersection of Missouri Highway 210 and I-435, seven miles from the central business district. Great Midwest Underground is a rail-served, 460-acre subsurface area underlying a portion of the development. Plans provide for industrial, office, recreational, and residential development of Great Midwest's properties.

ROBERT E. LONG, MBA '65, has been named chief executive officer of the West Allis State Bank in West Allis, Wisconsin. Robert, who had been president of the bank for two years, assumed the additional position upon the retirement of the bank chairman. He has also been named executive vice president of Bancorporation of Wisconsin Inc., a holding company that owns West Allis State Bank. Robert is active in the Lutheran Social Services and the United

Lutheran Program for the Aged, and is a master mason and a member of Kiwanis. He is also listed in "Who's Who in America" and "Who's Who in The World."

9g?£? GEORGE H. ASHLEY, BBA  
OO '65, MBA '66, has joined Seaman-Patrick Paper Company, in Detroit, as vice president of finance. He will have full control of and responsibility for the financial and accounting functions of the company and all subsidiaries. George has a strong financial management background in private industry and public accounting experience with Ernst & Whinney in both Chicago and Detroit. He lives in Troy, Michigan.

9 d% hf DONALD S. OWENS, MBA  
O 4 '67, received his JD degree in 1969 from the U of M Law School. He practiced law in Lansing for 4 years before becoming Probate Judge in Ingham County and has since become a nationally known authority on the law of child abuse and neglect. Judge Owens lectures widely on all aspects of the law relating to children, and serves as chairman of the Michigan Probate and Juvenile Court Judges' Juvenile Affairs Committee. He lives with his wife Carolyn, a U of M graduate, and their four children in a 142-year-old house which is a state historic site in the small town of Mason, Michigan. Judge Owens feels that his business school experience has been an invaluable asset to him, first as a probate and tax lawyer, and then as a Probate Judge, since his court has approximately 100 employees and a multi-million dollar budget. He also credits Professor Arthur Southwick (Business Law) with instilling in him a love of the law and inspiring him to go to law school and pursue a legal career. As a result, he feels that the 14 months he spent at the Business School were among the most important in his life.

RICHARD CARL JENSEN,  
MBA '68, has been president of Boatmen's West Port Bank in St. Louis County, Missouri for the past two years. He has lived in St. Louis since 1971 with his wife, Louise, and his two boys, Arjay, 11,

and Morgan, 7. They visited Ann Arbor this past summer when returning from their vacation. Richard is a past president of the Michigan Alumni Club in St. Louis and currently serves as a director. He is also a lay director of DePaul Hospital in St. Louis. He and his wife have recently taken up scuba diving and look forward to going to the Florida Keys.

'^7Hi AARON B. RIVES, D.P.M.,  
4 \j BBA '70, is a podiatrist with two offices in the Detroit Metro area. He entered medicine after a successful career as the youngest personnel manager of Hygrade Food Products in Detroit. He and his wife, Ronna, have a new daughter, Ericka.

FRANK HAVEL, MBA '70, is a regional manager for Ingersoll Milling Machine Co., a special machine tool company based in Rockford, Illinois. Frank is based in Houston, Texas and is responsible for all accounts west of the Mississippi River. He received his professional engineer's license in Texas in 1981. Most of his business dealings are with oil patch and aerospace/defense firms.

9 £7 "1 JOHN BATTAGLIA, BBA '71,  
/ JL has been in the real estate business in Roseville, Michigan which, he says, has been in a bad depression for the last three years. However, because of his low overhead, he has been able to survive, but, he has also started a new business. The new business is Battaglia Distributors and they sell natural herbal and mineral preparations manufactured by Paracelsus Laboratories, Inc. in Utah.

9^TC| RAYMOND LEUNG, MBA '73,  
4 \*J has taken the job of planning systems manager at PennWell Publishing Company in Tulsa, Oklahoma. There he improves and oversees the current strategic planning process, develops a planning guide, does forecasting, and helps individual planners with strategic planning. Before going to PennWell, Ray worked at Clark Equipment Company in Benton Harbor, Michigan, where for nearly five years he served in various strategic planning capacities. There



he developed monthly forecasts, coordinated an annual and five-year planning system and put productivity improvement programs into effect.

TOM WETZLER, MBA '73, is vice president of operations/sales of Tetra Resources, Inc. in Houston, Texas which he formed with two other people in February of 1981. In 1981, Tetra Resources had sales of \$5 million and in 1982 sales were \$15 million, with 85 employees. The company is an oilfield service company specializing in completion fluids and specialty drilling products. It has seven sales offices and 15 operations facilities in Texas, Louisiana, Oklahoma, New Mexico, and California.

MICHAEL K. MENEREY, BBA '73, moved to Los Angeles in June where he is presently the manager of accounting for Transit Mixed Concrete Company, the second largest producer in the Southern California market. Before his present position, he spent *V-h* years with Seidman and Seidman CPAs, then spent the next two years in his own CPA partnership before moving into private industry, which he says he enjoys immensely. He and his wife, Suzie, have two sons, aged 4½ and 2½, and he says he keeps up with the University by belonging to the L. A. alumni club and to the Big Ten Club of Southern California.

J M A WILLIAM E. SHERIDAN III, f TE MBA '74, has assumed responsibility for Apache Corporation's revenue and well-costing accounting services. He was elected controller of Apache Corporation, Minneapolis, Minnesota in May of 1981 after joining Apache in May of 1980 as director of planning and financial reporting of Apache Corporation and controller of Apache Programs, Inc. Bill was previously an audit manager with Arthur Andersen & Co. and is a member of the American Institute of Certified Public Accountants and the Minnesota Society of Certified Public Accountants. Apache Corporation, an oil and gas program, exploration and production company with industrial and agricultural

## *laiTy C. Myers HL MBA '72, is now ZEO of Highlights for Children, Inc.*

Garry C. Myers 111, MBA 72. wrote tin an interesting note alnmt what had happened to him since graduation. He says, "After graduation from Michigan I worked as a sales representative lor Alcoa in Ohio until 1975 when the bottom dropped out of the aluminum market and Aleoa began to cut hack. I had a sou, Garry IV, in February, 1975, saw the handwriting on the wall in aluminum in August, arid quit in December, The Toledo office of Alcoa was subsequently closed and all people released. In I Jet ember, 197f\* I took a gigantic pay cut to work as an in format ion analyst for Highlights for Children, a company my grandparents had founded m 1940, The company was owned and controlled by a family trust and was managed very ably by turn-family businessmen, I leai tied to program the company's computers, and was promoted to director of mail marketing, then to vice president of mail marketing,

operations, is listed on the New York and Midwest stock exchanges.

ROBERT H. PEIFFER, MBA 74, is a commander in the U.S. Navy Supply Corps stationed at the headquarters in Washington, D.C. He is currently involved in analyzing the Navy's problem with poor inventory record accuracy, defining the causative factors, and developing and implementing a corrective plan of action. He writes, "I continue to be an avid fan of the Maize and Blue and really miss those Saturday afternoons cheering on the Wolverines."

' ^7 K JOHN E. JAMERSON, BBA 75, 4 %J after an MBA from the Sloan School of Management at MIT, joined Dean Witter's corporate finance department in New York. Following four years on Wall Street, John moved to Montgomery Street in San Francisco to oversee Dean Witter's western project finance activities. He has been financing various energy projects and has been

then to president. I then became president of Zaner Bloser, an elementary textbook publisher and wholly owned subsidiary of Highlights. In 1981 I was made GEO of Highlights and all of its four separate subsidiary companies.

"Highlights, which is in Golumhiis, Ohio, is an educational publisher as are the subsidiary companies, Zaner Bloseraiict Skilleorp Publishers Inc. Aggregate sales are between \$25 and \$30 million and we have a combined workforce of over 400 people,

\*in 1975 I learned I had lymphatic cancer and during most of the time from 1975-1979 I underwent chemotherapy and radiation treatments. Am now free of it I hope. Melanie, my wife, has been a great help and support during the whole time and is currently a business student at OSU,"

active consummating tax benefit transfers and credit real estate leases. He writes that he enjoys working with JIM SWIGART, MBA '76, in Dean Witter's project finance group, and has managed to keep proficient at fly fishing, golf and various racquet sports.

J hf £\* C. MICHAEL KRUSE, MBA 4 %3 '76, has been named representative for Venezuela for Bankers Trust Company of New York, and has moved to Caracas. He joined Bankers Trust on graduating from the Business School, and served as deputy representative of the bank in Madrid from 1978 to 1981. He then became head of the bank's Iberian desk in New York. He is married to the former Jeanne Nelson and has one 17 month old son.

9 M M RAZIEL ROM, MBA '77, went / / back to his home country of Israel after having some experience with Ford Motor Company and

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We would like to include more news about alumni in *Dividend*, and hope you will help by providing us with information about yourself. We'd like to know where you are working, and other news about you, such as promo lions, new business ventures, any business or academic honors, authorship of books or articles, of other informadon that would be of interest to alumni. If you would take the time to fill out the form below and send *U* to "Editor, Alumni News, Graduate School of Business Administration, University of Michigan, Ann Arbor, Michigan 48109," we would very much appreciate it.

Name: \_\_\_\_\_ Degree(s) and Class Years: \_

Business Position:

Business Address:

Home Address: <sup>TM</sup>

Please write below some personal or business news about yourself that we can share with other alumni,

Burroughs Corporation. After three years with a large manufacturing company, he started a company of his own with two partners. Cycon Ltd., formed in May of 1981, is a high technology corporation specializing in CAD/CAM systems for tool, dies, and prototypes. The company was started with five people employed and now has 31. Razi says that they have invested 1.5 million dollars in R&D and predict sales of \$18 million a year from 1985 on. He writes, "I tell you all this because I remember and appreciate Professor Warshaw who advised me: 'Keep your eyes open, and make the move when the time comes.' There is no doubt I owe him some of the success."

THOMAS E. CHANDLER, BBA '77, graduated from George Washington University law school in May, 1981 and passed the District of Columbia bar exam in December, 1981. He is now working for Finkelstein, Thompson and Levenson in Washington, D.C., practicing corporate and securities law.

' ^7 Q ROBERT A. BAILEY, MBA # O '78, is an internal auditor with Hanna Mining Co. in Cleveland, Ohio after four years on the audit staff of Coopers & Lybrand. He and his wife, Mary, continue to live in Chagrin Fall, a suburb of Cleveland.

CHRISTIAN E. SOMERS, MBA '78, joined McKinsey & Company, Inc. of Los Angeles, California on August 1, 1982 and will be primarily involved with the firm's electronics practice. Prior to joining McKinsey, Chris spent three years at Gould's instrument division in Santa Clara, California as a product group manager.

NAT MALCOLM, MBA '78, is still in the U.S. Navy stationed in England but is also running his own retail business doing about \$18 million annually at 11 different locations. They sell everything from stereos to Wheaties; and he says, "I could use another two or three MB As for this!" He claims the hardest part is finding time to see the beautiful country and would love to be a tour guide for any MBA '78s visiting England, Scotland or Wales.

*Continued on page 36*



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**The Changing Federal Environment  
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## Class Notes

*Continued from page 34*

J H A JON CANTOR, MBA '79, is an  
• %J internal consultant in the management services division of Bankers Trust in New York. His responsibilities over the past six months have taken him to Korea, Japan, Los Angeles, and Miami, as Bankers Trust seeks to expand its national and international services.

BRIAN M. SMEENK, MBA '79, joined a large Toronto law firm after leaving U of M and was admitted to the Bar of Ontario in May, 1981. He is a labor lawyer with Winkler, Filion & Wakely and represents many large international and Canadian corporations in arbitrations, collective bargaining and labor board proceedings, as well as in court. He writes that while he followed a somewhat atypical career path for MBAs, his time at U of M was certainly helpful and that he often thinks of the good times and good friends from his MBA days.

9 Q /" | MARK KAPLAN, BBA '80, O vl has finished his two-year "apprenticeship" to become a CPA and is currently on leave of absence and pursuing a longtime dream. He is traveling around the country as the business manager for one of San Francisco's top new wave bands, Barry Beam, and has been working with them for almost two years touring around U.S. in support of their newly released record.

PAUL J. GIBLER, MBA '80, has been promoted to market communications manager of Ohio Medical Anesthetics in Madison, Wisconsin. In this position he will be responsible for worldwide advertising and sales promotion programs for enflurane and isoflurane. Paul joined the company in June, 1982 as market analyst for Latin America and the Far East and was active in the organization and development of direct and export operations in these regions. Prior to joining OMA, Paul was an instructor of business administration at the Milwaukee School of Engineering. He is fluent in both Portuguese and Spanish, having lived in Latin America for 14 years.

DANIEL COTA, MBA '80, has joined Computer Sciences Corporation's Infonet division as their accounting products manager; it is located in El Segundo, California. He was with ADP Network Services in Ann Arbor prior to joining Computer Sciences.

WILLIAM WAGNER, MBA '80, has accepted a position with the Pepsi-Cola Bottling Group in Southeast Michigan as an area fleet supervisor. Bill and his wife, Pat, had their first child in September, a son named Mark.

'81 LEE BERKE, MBA '81, has been appointed promotion associate/senior copywriter at

PocketBooks. In his newly created position, he will be writing sales promotion, advertising and communication materials. Lee was recently employed as an assistant product manager with Fundimensions, a division of the General Mills Toy Group.

## Ph.D. Notes

DARYL N. WINN, MBA '64, PhD '73, has been at the University of Colorado since 1971 and is now Head of the Business Environment and Policy Division. Daryl worked for the Federal Energy Administration in Washington, DC for one year (1975-76). He and his wife, Elizabeth (Pinky), BS LS&A '64, have two children, Tom, 10 and David, 12.

THOMAS A. CASE, PhD '74, is managing partner of CATHO Progresso Profissional Comercial Ltda. which has completed its fifth year of existence. They have become the largest executive search firm in Brazil and the largest outplacement firm. He writes that the brokering of acquisitions and divestitures is an exciting new area that they have become very active in. Tom's daughter, Susan, U of M '81, is working with them as manager of the direct mail advertising division and studies for her MBA at night.