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Policies, Attitudes and Outlook for Economic Development in South Dakota: Highlights of Papers Presented at the Tenth Agri-Business Day

South Dakota Agricultural Experiment Station

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Policies, Attitudes and Outlook for Economic Development in South Dakota

Highlights of Papers Presented at the

Tenth Agri-Business Day

April 4, 1972

Economics Department
Agricultural Experiment Station

South Dakota State University
Economics Pamphlet 140
Policies, Attitudes and Outlook for Economic Development in South Dakota

Highlights of Papers Presented at the Tenth Agri-Business Day

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Compiled and Edited by Robert J. Antonides
Any person from farming country who has passed his 35th birthday will appreciate a recent editorial by Wayne Swegle in *Successful Farming*:

There are several disadvantages of growing older. One is hearing the same speeches, the same promises... that you've heard... for 20 years.

I thought about this as I listened to a parade of... presidential contenders.... They all said... the same magic words they've been saying for years, and they all said what they thought farmers wanted to hear.¹

Some issues lend themselves to platform oratory by political figures. They also lend themselves to being left unsolved, lest their hortative value be lost. I sometimes think protection of the family farm and development of rural communities are of this nature. They are regarded as better subjects for talk than action.

Larry Simerl, wise veteran extension economist at the University of Illinois, says certain other issues are highly useful to farm organization leaders, for they are sure-fire aids to recruitment. They may not have much economic content but they get prospective members to sign on the dotted line. Imports of dry Australian beef, and various commodity promotions, are candidates for this category.

**A Few Negatives**

Mr. Swegle's reflections about having heard it all for 20 years unnerv[e those of us who have been on the farm policy hustings during the same time. We wonder if we too have been saying the same things year after dreary year.

It's a double worry. One, both speaker and audience tire of repetitiveness. Two, perhaps things actually have been changing and it's only the speaker who is stuck at a scratched spot on a worn out record.

So, scared by Swegle I am going to change the usual tune and say some things different from those usually heard.

I am not going to sob that U.S. farmers are pore little country boys without a friend in court.

I will not repeat the conventional line that farmers' first goal is to get an adequate income.

Even though I will speak respectfully of trends toward a more organized agriculture I will deny that getting economic power into farmers' hands rates top priority.

At the risk of being undiplomatic I will refrain from saying that farmers and agri-business have identical interests and need only work hand-in-glove to mutual gain. Then, though I will declare that development of rural communities justifies their cooperative effort I will not build my case for that program upon sanctity of the rural scene.

Absent from my new-style speech will be the comfortable idea that economic problems are self-solving, and particularly that production efficiency is or should be the universal test of economic survival.

Lastly, as I am convinced that most forecasts of quickly renewed national prosperity, of steadily growing wealth for all of us, are pipe dreaming, I will point to serious problems ahead in national economic policy.

Numerology of Political Effectiveness

About a decade ago, in the wake of calls for legislative reapportionment farmers of the U.S. suddenly became aware of their numerical inferiority. Thereupon they ran to the wailing wall, bemoaning their loss of political influence.

Though natural enough, the laments revealed a misunderstanding of the political process in democracy and especially of the majority concept. First of all, there aren't many absolute majorities. I think of only two. One is females; although more boy than girl babies are born, women live longer than men and outnumber them. The second is consumers. Each of these groups is now scrambling to exploit its arithmetic advantage but neither is proving highly successful.

Almost always, a majority is only a coalition of minorities. Almost always, the coalition is fluid and temporary.

It had better be that way. Think of the power a permanent majority could wield! The political scientist Frederick Watkins writes that "intransigent majorities, no less than intrasigent minorities, are incompatible with the formation of a comprehensive general will." Far from letting a

51 percent majority become despotic, there must be a "moral consensus with regard to the inalienable rights" of individuals and groups.  

In a democracy the ultimate concern must be with a minority of one, the individual citizen.  

(In this light, bumper sticker proverbs about a silent majority are anti-democratic.)  

Farmers are a minority who alternately compete with and ally with other minorities. In one sense their smallness helps them, especially in getting a slice of the federal budget. If half the population were farmers, instead of 5 percent, would the federal Treasury contribute, by direct payments, a fourth of farmers' 1972 net income? Not a chance!  

On the other hand, farmers' minority position puts a farm leadership under two obligations, both heavy. First, it forces a certain amount of horse-trading with non-farm minorities. Congressman Poage once told a Missouri audience that he voted for rat control in New York City in the interests of farmers. Secondly, farm leadership must bow to a certain few urban demands. Urban representatives in the Congress seem to set about three minimum conditions to their support of farm programs. They want food prices to be moderate and not high, even though Treasury dollars might have to be paid to farmers to sustain their incomes. They absolutely will not tolerate direct payments of the scale of a quarter-million or million dollars to a single payee. And they insist that farm groups give their support to supplementary food programs.  

Once those conditions are met, urban congressman and senators have proved willing to enter into alliances sympathetic to farmers.  

Surely the string of concessions to agriculture in early 1972 stands in denial of farmers' political impotence. Admittedly, though, farmers' political punch is a little greater than just now because some political pundits believe rural voters ride astride the difference between 49 and 51 percent of the total vote. That is a politically strategic spot indeed!  

Lastly, their minority status forces farmers and their leaders to look to their public relations. Farmers generally project a favorable public image. It is essential that they continue to do so. Not always is this rule adhered to, though. It's a personal judgment, but I believe that the disclosure of milk cooperatives' political payments last year, closely aligned with an increase in price supports, did several times more harm to agriculture generally than the value of the 27-cent boost in support price.  

The public relations image of farming will be crucial if a serious campaign be launched to retain our traditional system of farming.  

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Ibid., p. 261.
Preservation of Identity

As my second opening denial, I said that farmers' number one problem is not their income.

Their number one problem is their identity.

It is the problem I have just referred to: namely, that of whether the kind of farming we have known in the past will be retained in the future; or whether, instead, we will embrace farming within the ever-expanding industrial corporations, itself becoming conglomerate.

Not only farmers but the rural community is affected. For independent farms generate local businesses. Many of them, in all probability, would disappear if farms were managed from Chicago or New York.

In my judgment traditional farms will not be able to defend themselves unaided. One reason this is so lies not in the performance of farms, which is good enough, but in the behavior of the non-farm economy. Everywhere the trend is toward telescoping industries into vertical complexes revolving around merchandising. For them control over raw material is strategically advantageous.

Land is a natural monopoly. It yields rent as an unearned income. Also, its value seems to rise incessantly. Who wouldn't want to own a large chunk of it?

Can farmers resist the threat better if their incomes are shored up? It long was thought that adequate incomes would be farmers' defense. That idea was one of the original reasons for enacting the farm programs of the 1930's. The persuasive evidence is that the opposite is true: the higher the incomes in farming, the more attractive farming is to non-farm investors.

Therein lies another twist to the notion of farmers' minority status. The inferiority that hurts farmers most is not in their votes but in their investment dollars. In a show-down farmers cannot compete with Tenneco in access to funds.

Even so, the future status of farming depends weightily on whether the conglomerate trend in industry continues unchecked. The faster agri-business goes conglomerate the more certain it is that farming will be swallowed up, mainly because it is the practice of conglomerates to swallow up anything it finds attractive as nonchalantly as a pelican swallows a fish.

It is significant that the farm organization that has shouted loudest for farmers' bargaining to get higher commodity prices now asks for legal restrictions upon big-corporation farming. Said Oren Lee Staley, NFO President, in testimony before a committee of the U.S. House of Representatives, "... a pretty fundamental decision about the type of agriculture..."
we intend to foster in America ... has to be made, before an intelligent collective bargaining system can be established.\(^4\)

The National Farmers Union has long warned against "factories in the field."

Internal Democracy in an Organized Agriculture

It is coming to be accepted that the agriculture of the future will be a more organized agriculture.

The cooperative is the oldest organization for economic action. In it farmers come together to perform procurement or marketing services in their common interest. A newer organization is the collective bargaining association, in which processors remain independent but terms of sale are negotiated jointly rather than individually. Or, if farmers produce under contract, the terms of contracts are negotiated collectively. Third is the marketing order, under which a decision as to marketing made by two-thirds of local producers of a commodity becomes enforceable upon all.

Farm leaders who have striven for larger and more effective organizations have put most emphasis upon acquiring power. They seem to regard that as the ultimate goal. It's almost as in the fairy tales, where the beautiful princess is the object sought and, once she is won, invariably "they lived happily ever after." Haven't we all wondered if the couple did in fact live in harmony?

The same question can be asked about farmers' getting power. Why are we so sure that once power is attained, all will thereafter live happily?

They probably will not, but will suffer countless domestic struggles.

It isn't so hard to acquire power in agriculture. Any group that can get a grip on the supplying of life-sustaining food is in a position to wield power.

The harder job is not getting power, but using it wisely.

If agriculture were to organize itself tightly, it would be tempted to abuse its power and push prices too high. If it did so a number of nonfarm minorities would coalesce for counter action. Such misuse of power is therefore self-correcting. It is not our main concern.

The greater danger is that power would be mishandled internally. Any tight-knot group within agriculture could hold enormous arbitrary power over both member and non-member producers. How can farmers be sure that power will be used considerately? What guarantee have we of internal democracy?

\(^4\)Oren Lee Staley, Statement...before the Domestic Marketing and Consumer Relations Committee, Committee on Agriculture, House of Representatives, October 1, 1971, p. 2.
Three instances of this problem come to mind. One is from labor unions. Shrewd observers tell us that unions' greatest problems are internal ones and not the external negotiations with employers. Difficulties range from setting skill differentials in wage rates to keeping hoodlums out of union councils.

Number two comes from opinions of Missouri farm leaders about their cooperatives. Asked in a poll last spring, they said they wanted their co-ops big for effectiveness but they didn't like at all the increasing distance between members and their leadership. The feeling is deep seated. Our co-op members feel like forgotten men.

Number three likewise relates to co-ops, the huge milk bargaining co-ops. Some try to assume life or death control over both local milk distributors and local farmers who produce milk. It is highly doubtful that farmers of the Capper-Volstead Act ever intended so drastic an application of the right of farmers to cooperate.

Organized power can pit farmer against farmer, and even invite a kind of civil war within agriculture.

Repeating, the biggest problem with power is not how to get it, but how to use it prudently.

Mutual Differences and Common Interests

Now to negation number four, that farmers and agri-business are bosom buddies. That they are not should be clear from my remarks above about farmers' struggle to maintain their identity. Some of the threat comes from agri-business.

Nevertheless, it is better to "accentuate the positive," and to pose the entire question in terms of what the relationship should be between farmers and agri-business. Historically, the connecting link between farmers and the firms from which they get their supplies and to which they deliver their product has been the market. But the traditional open market system is fading. Its persistence thus far in grains and livestock misleads as to the extent of change to date and prospects for the future. Before every audience, by every argument I can advance and every literary device I can dream up, by pleading and cajoling and shouting I have been trying to say that the time honored market system is slipping away and that mutually satisfactory replacements must be found.

Examples of new developments are familiar: contracting of broilers and turkeys, Coca-Cola's direct operations in citrus, Purex in lettuce, and the Tenneco conglomerate that farms Russian-sized farms Russian style. What will we have in the future? Markets, contracts, bargaining, cooperatives, full agri-business ownership of farming -- or still something else?

Farmers are not happy with some of the new arrangements, such as contractual integration. It is possible that they ask too much. They may not
be sensitive enough to some of the pressures in the modern marketing system, as for dependability in source of supply. At the same time, some agri-business firms have turned a deaf ear to farmers' pleadings. In such a setting all parties need to show consideration and seek a balanced solution.

By any fairness test the contractual system in broilers is exploitative and should be rectified. On the other hand, Babb and others who studied contractual production of tomatoes in Indiana found that there was a genuine "trade-off" of interests between processors and organized farmers. Processors wanted improved quality of product and farmers wanted a better price. The stage seemed to be set for effective negotiation.5

Likewise, in milk marketing the super-pool device has offered distributors a promise of uninterrupted supply of a specified quantity of milk, a positive gain justifying a boost in price. But in some instances cooperatives did not negotiate the size of the premium with distributors but announced it unilaterally. That is not collective bargaining, which by definition involves two parties. In eggs, organized commodity trading has disappeared and a search has been on for a new mechanism to establish price.

Other examples could be given. The farmer-agri-business relationship is in a state of flux. Ingenuity and good faith are called for. Always, any new system must not only work well operationally but be equitable to all parties.

Rural Development

If the parlous state of farm product markets invites debate between farmers and agri-business, another policy issue ought to bring them together in the warmest embrace. It is rural development. That both have much at stake in building a vital rural community should be self-evident.

My next negative related to the rationale for an aggressive program of rural development. The program ought not be justified on grounds that rural areas are so blissful, a paradise on earth. They are not. They have their share of blemishes, and it is both inaccurate and poor strategy to engage in panegyrics that are factually unsupportable.

This is not to deny certain merits. The family farm, for instance, leans heavily on the family as an institution and thereby strengthens it; and it breeds a sense of responsibility that is harder to achieve in obscure posts in corporate bureaucracy. But the faults are numerous. On another occasion I wrote as follows:

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The rural community has its social class lines and its discrimination. Large farmers, however sterling their personal qualities, often are more interested in squeezing the smaller farmers out... than in helping them stay in. Established families sometimes treat newcomers as interlopers. Moreover, rural areas often hold tightly to outmoded systems of local government. Some commercial farmers resist rural development because it might lift wage rates of farm labor. And so on.

Why then should the rural community be developed? It should be developed as a countermeasure to the relentless national trend to envelop everyone and everything into a giant, faceless, mechanistic, conglomerate-corporation urbanized bureaucracy. The rural area is the only place a defense can be thrown up. There is no other.

Admittedly, an active program of rural development will require what Professor James Shaffer calls "institutional innovation". Rural area must impose controls to keep their air clean and water pure. They must guard and treasure every resource. They must dispose of wastes. They will find it necessary to zone rural land for appropriate use, and keep rural industry from chasing low taxes, and forbid unrestored strip mining, and form governments that pay no attention to county lines or city boundaries, and take a dozen other actions that rural people don't like to take. But they will learn to do all this because only in that way can they have the kind of communities they want for themselves and posterity.

Fiat Efficiency

My next negative was that economic problems are not self-solving and that production efficiency is not the principal criterion for making economic policy.

The falseness of these attractive ideas is obvious. Yet they are recited time after time. Repeatedly we hear defense of giantness in business, for instance, on grounds that the fact of its existence proves it worth, and that it is efficient. The inference is that it is operationally efficient. A more accurate word is that it enjoys a fiat efficiency — efficiency in using market power to negotiate favorable supply contracts, or in imposing territorial franchises that limit competition, or even in lobbying for a favorable concession from government.

In agriculture, the same fiat quality holds for most claims to efficiency in giant superfarms. Water Goldschmidt, who studied the Arvin and Dinuba communities in California many years ago, declares that the

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apparent profitableness of large farms "is a profitableness that derives from extraneous factors and is not a product of more efficient use of land, labor or energy resources."  

**Forecasters' Air Castles**

Lastly, I want to record a vote against the rosy predictions that so many forecasters love to make, that our present tussle with productivity slow-down, foreign trade imbalances, inflation, unemployment and other distresses is only an interruption in a magic carpet journey to an earthly Mecca.

That prophecy is highly questionable.

Economists with such an optimistic bias are now getting the heaviest forced dose of soul searching they have experienced since the Greek Crash of 1929.  

The remarks that follow are admittedly a highly personal summary. Yet evidence suggests three particular sources of difficulty: a distribution of income too skewed to keep employment high in an economy that does not need as rapid growth as in the past; excessive concentration of economic power; and the beginning of a progressive exhaustion of physical resources.

Each of these is worthy of a separate paper, or a book! As to the first-named, in an economy requiring high rates of investment a highly inequitable distribution of wealth and income can be justified to some extent as providing a source of investment funds. But our population growth is slowing down and for the reasons I will name in a moment, considerable sentiment exists to conserve our resources and not use them at an ever faster rate. Ever-accelerating economic growth is not so fashionable now.

That economic concentration is increasing year by year is fully documented. Can business today so control output, markets and prices that market forces no longer serve their function? John Kenneth Galbraith has long said so, and President Nixon in his Phase I and Phase II virtually confirmed the doleful judgment.

All economic activity and wealth rest on converting raw materials into items for human consumption. Some materials are of organic origin, as plants produced from soil, and their supply is self-sustaining. Many others are mineral and subject to depletion. The U.S. is already a deficit nation in many metals, importing large quantities. In a recent Extension letter I called attention to the imminent depletion of several metals and the

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7 *St. Louis Post-Dispatch*, March 3, 1972, p. 6A.  
8 For professional economists, good current reading is a series of articles in *Saturday Review* for January 22, 1972, pp. 33-57.
cheapest sources of energy. World reserves of copper will last only a
generation, for example; and of lead only half as long. Petroleum pro-
duction is expected to peak out about the year 2,000, and natural gas
output even sooner.\footnote{Harold F. Breimyer, "The Painful Transition Ahead to a Have-less
Nation," Econ. & Marketing Information for Missouri Agr., Cooperative
Extension Service, University of Missouri, Columbia, March 1972.} Tightness of resources already affects our pro-
ductivity, in my judgment, and will impose itself more in years ahead.

The Sum and Substance

In summary, the strengthening of agriculture in the future raises
serious issues as to political power and strategies, but they are not, in
my opinion, primarily issues originating in under-representation of farming
and rural areas. The political process is much less an exercise in arithme-
tic than is usually advertised.

The greatest political problems relate not to agriculture versus the
rest of the nation, but to relations within agriculture as narrowly defined
and also to relations between farming and agri-business. Efforts toward
group action by farmers have given far too little attention to guaranteeing
internal fairness and democracy. The old connecting links between farmers
and agri-business are either rusting out or being forced into discard. Once
they were principally a system of open markets. They are being replaced by
a dozen devices on many commodity fronts. The new arrangements are not
always satisfactory, and a search is on for ways to re-establish relations
that are both operational and equitable. Above all, farmers want to be
assured that in the adjustment process they are not totally absorbed and
lose their identity.

There are issues of political power and strategy in bolstering the
rural community. Potential rewards are appealing, but the unified and
innovative action that is necessary does not come easily.

Finally, in the future we will be denied the luxury of addressing our
economic problems within a setting of rapidly rising per capita output and
income. This will be a sobering experience.

But it need not defeat us. Perhaps the first rule for approaching any
problem is to be honest in defining it. The political problem in agriculture
is partly a problem of strategy in national alliances, for democracy works
through transitory liaison and not lasting marriage. But it is even more a
problem of marshalling the resources internal to agriculture, agri-business
and the rural community — resources of enormous potential that are as yet
only partially developed.
Marketing is probably one of the most misunderstood aspects of the business enterprise. It has long been the business activity most ignored by all sectors of society. Much of this misunderstanding arises because we cannot agree among ourselves on what we mean by marketing. For example, agricultural marketing is often defined as "everything that happens to a product from the time it leaves the farm until it is purchased by the consumer." On the other hand, industrial marketing has often been concerned primarily with selling a product. But businesses are beginning to realize that manufacturing is really an extension of the marketing activity, not vice versa as traditionally thought. Marketing managers are finding themselves elevated to high positions in many companies. Marketing is breathing new life into many business enterprises because they are recognizing the managerial dimensions of marketing.

Marketing in its managerial dimension involves the purposeful management of the product and services, of prices, and the promotional distribution activities of a business organization according to the preference of some market or market segment. The particular market is determined by the purchasing power and felt or latent needs of a group of people. The managerial dimension of marketing also emphasizes that marketing activities are performed to achieve various goals of the business organization, such as profits, market penetration and sales volume. The managerial approach to marketing leads to a total marketing concept, which considers the entire firm as a marketing system. This means the firm is an organized whole, consisting of a number of independent, but interacting parts. The firm (system), consisting of several parts (sub-system) is trying to achieve goals in the market place.

The firm’s market is a function of (1) customers with needs, wants and resources, (2) rival firms, (3) competitive forces, and (4) environmental forces in flux. Currently, many of the changes occurring in markets are a result of environmental forces in flux. Environmental forces can be categorized as: social, economic, technological, competitive, political-legal, and foreign. For example, social forces have resulted in rural residents wanting the same products and services as their city cousins, and at comparable prices. The ecology movement and the desire to protect our environment is another example of important social forces. In Illinois, during the last session of the legislature a bill was introduced to restrict the amount of nitrogen fertilizer per acre that a farmer could apply. Although the bill never became law it does signal another way that social forces can have a direct impact upon our businesses. And in South Dakota our business firms are being influenced by increasingly strict anti-pollution laws.
Economic forces have resulted in decreased farm numbers, and increased farm size. Many agri-businesses have also been forced out of operation. Our state is dotted with monuments to these economic forces.

Technological forces have made it possible for rural residents to travel greater distances to do their shopping. This often means by-passing businesses in their local communities.

Competitive forces have resulted in a huge increase in the number of products and services being offered to your customers. An ever-increasing number of firms are trying to invade your market.

Political-legal forces in the form of government programs and tax rates have a direct influence on the purchasing power of consumers. Another example of political-legal forces is the Interstate Commerce Commission approval of railroad branch-line abandonment. As this continues at an increasing rate it can easily change your market and your sources of supply.

In addition, foreign forces are becoming increasingly important as our agriculture becomes more export oriented. Actions taken by countries thousands of miles away have a direct impact upon our agri-business in South Dakota.

Obviously these are only a few examples of how environmental forces affect our businesses. Small, day-to-day changes in these forces can be just as important as the major trends I have outlined. In order to cope with these changes your firm must adopt the total marketing concept, which means the firm keeps surveillance of its markets, detects and evaluates forces for change, and feeds this back as inputs into the firm. This generates new strategies throughout all the sub-systems of the firm. This new behavior is designed to achieve the goals of the firm, or to exploit opportunities. Customers and competitors respond to the firm, and their responses are observed, evaluated and fed as inputs back into the firm.

So we see that marketing is not just a collection of functions, such as product planning, market research, pricing, advertising, and distribution. Nor can marketing be properly defined as selling. Selling concentrates on the needs of sellers to "get rid" of a product. Marketing concentrates on the needs of customers, and attempts to provide them with as much satisfaction as possible. Marketing is learning, creating and satisfying customers' needs at a profit.

To effectively use the total marketing concept a firm must redefine its products, its competition and its markets. A product is not what the product is, but rather what it does. A product is a bundle of attributes and it has value not because of what it is, but because of what it can do. And what it can do for a customer determines what the customer is willing to pay for it.

Because your product is what your product does, your competition is any existing or potential firm supplying products or services that do essentially the same things for customers. For example, the dairy industry's fluid milk competition is not just imitation milk, it is all existing and potential
beverages, nutritious or otherwise. Fluid milk competes with Pepsi-Cola, iced tea, coffee, beer, cranberry juice and other beverages. Any of these other beverages can do many of the same things for customers as milk, but possibly not as well.

To make effective use of the total marketing concept your firm must be people oriented, not product oriented. It must be organized according to the needs of the market, not according to company convenience or tradition. The entire corporate organization must be guided by the needs of the market and the marketing objectives and strategy of the firm. All functions of the business must be organized according to predetermined marketing objectives, policies and plans to assure a strong coordinated and consistent corporate effort.

The customers in your firm's potential "market" are the people who might achieve value satisfaction from your product. But not all people perceive your product the same way. So you have many potential markets or sub-markets, each requiring that your product do something a little different. Generally a firm cannot be all things to all people, so you must concentrate upon those sub-markets where your product will give the greatest surplus of buyer satisfaction over cost. The total marketing concept can only generate growth for your company if you aggressively identify the different pockets of need you might serve, and give special attention to the unique demands of each of these sub-markets. This calls for a product strategy specifically designed for a particular sub-market. For example, a Coca Cola formulated for Americans will not sell in many foreign countries. It tastes terrible to the customers. It does something different for Frenchmen than for Americans. As a result the Coca Cola formula is varied as necessary from market to market in order to specifically satisfy customers in each market.

Careful planning and coordinating are necessary in order to concentrate the efforts of the entire firm upon serving a particular sub-market. Product strategy should involve developing your product or service to fit the particular needs of a sub-market. Operational elements of the firm, such as engineering, and research and development must concentrate upon developing such a product or service. Lack of planning and coordination can result in one product image being given by your salesman; another image by your advertising; another image by your package design, and still another image being given by product performance. This inconsistency in product image is self-defeating. All aspects of the marketing effort from engineering, manufacturing, credit management, sale to customer, and follow-up must be reinforcing. Notice that marketing does not stop when the product is purchased by the consumer. Often service after the sale is the major factor determining customer satisfaction with a product.

Planning and coordination will help insure that your firm is offering the correct bundle of attributes to the correct sub-market. Then market strategy can be developed which will concentrate upon this particular sub-market. The advertising, distribution, pricing, and selling sub-strategies can all be focused upon that particular sub-market which wants and needs the bundle of attributes provided by your product.
However, customer's values are constantly changing, so the kinds of products that satisfy them constantly change. To anticipate and fulfill future customer needs, a firm must engage in long-range planning. This forces your business to become forward looking. Your company must either act to shape its future or defensively react as it rebounds from crisis to crisis through time. To achieve the growth possible through the effective use of the total marketing concept your business must be led by men of long-range vision. These men must be sensitive to political, social, economic and technological change with the ability to understand these changes in terms of their long-run impact on the needs of customers.

In addition, your firm must maintain a market intelligence system providing constant feedback of the entire business environment, including the changing competencies of your own company. This information must be used by men willing and able to establish goals and objectives and carry out a long-range course of action for the business. These men must be willing and able to change the things they can, and accept the things they cannot change as they try to better satisfy the evolving needs of customers.

Summary and Conclusions

What I am suggesting is that a firm's success in achieving its profit, growth, and survival goals depends on its competitive strategies, designed to cope with changing forces in its environment.

We have viewed the firm as a system, comprised of a number of subsystems developing outputs of products and services. But these outputs are continually adjusted by means of inputs from the markets. The entire firm is an input-output system, applying the total marketing concept.

This concept is just as important for a small firm in Faith, South Dakota as it is for an ITT or Ford. In fact, this concept may even be more important for a small firm such as a retail store, a 20-employee manufacturer or a printing contractor. A large firm may have a little more latitude for mistakes and live through them. Remember the Edsel? But a small firm may not survive a mistake.

The greatest problem in applying the total marketing concept is in understanding the concept itself. The concept is not a function of something you do, instead it is a "state of mind". The total marketing concept is a philosophy, and the very essence of business existence. Applications of the concept often requires a change in the way people think.

Your company's decisions must automatically and sincerely center around the question "how will this better satisfy customers," not around the question "how will this increase my sales". This is not just a different way of asking the same question. The focus is entirely different. Each question will generate different behavior by your company.

If your firm is to be rapidly growing and prosperous it must focus on the changing needs of its customers. It must provide what customers want, in the way they want it, when and where they want it, and at a price they are willing to pay. This is the essence of the total marketing concept, and it is increasingly the only profitable way of doing business.
Changes in a Selected Agri-Business Industry in South Dakota

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Assistant Professor of Economics
South Dakota State University

Dr. Payne presented the concept of total marketing and illustrated the interactions of the various segments of a firm's marketing system. My talk is concerned with the application of this total marketing system to the retail fertilizer industry in South Dakota. Within the limited time I have to present and prepare this paper it is not possible to analyze in depth the changes that have and are occurring in the retail fertilizer industry. An attempt is made, however, to examine as many major conspicuous developments as possible. These developments will be put into perspective and the possible changes that have resulted from these various developments will be pointed out. Some of the changes to be examined have persisted for some time in the industry and their effects are continuing. Other changes are of a more current nature and their effects have only begun to be felt in the industry. The reader should keep in mind that these factors not only act independently, but also jointly to explain changes that have taken place.

Changes in Technology

Perhaps more than any other variable or factor, technology has played a major role in changing fertilizer retailing. As Dr. Payne reported in his paper, "Businesses are beginning to realize that manufacturing is really an extension of the marketing activity, not vice versa as traditionally thought." This statement certainly has relevance to the fertilizer industry. In the early 1960's, the development of a new breed of anhydrous ammonia manufacturing plant was introduced. This breakthrough came with the development of the centrifugal compressor which allowed high pressure reforming and low pressure ammonia synthesis. Implementation of the new plant designs resulted in substantial reductions in the costs of producing anhydrous ammonia. Costs decreased from an average of $40-$50 per ton to around $15-$25 per ton. This reduction in cost led to the entry and expansion of nitrogen manufacturers. So rapid was the entry in fact, that the industry soon found itself with considerable excess capacity and over-production. In an effort to market this production, the industry lowered its price (Table 1), but with such an abundance of nitrogen, price-cutting was only partially successful. The industry found out that it needed a market for its product. Consequently, manufacturers began to acquire distribution outlets including retailing. An example of the acquisitions was Gulf Oil Company's purchase of Spencer Fertilizer Company, and Continental Oil Company's purchase of American Agricultural Chemical Company. Where they couldn't buy, manufacturers often built their own facilities. As a result, the fertilizer industry in the United States has become increasingly vertically integrated. In South Dakota, the extent of vertical integration is not easily measured, but an estimate based on data from surveys and other sources would indicate that less than 10 percent of the fertilizer dealers are truly independent.
Table 1. Prices Paid by Farmers for Selected Fertilizers in South Dakota, 1955-1971

<table>
<thead>
<tr>
<th>Year</th>
<th>Ammonium Nitrate</th>
<th>Ordinary Super Phosphate (20%)</th>
<th>Concentrated Super Phosphate (45%)</th>
<th>Anhydrous Ammonia</th>
</tr>
</thead>
<tbody>
<tr>
<td>1955</td>
<td>96</td>
<td>43</td>
<td>82</td>
<td>175</td>
</tr>
<tr>
<td>1960</td>
<td>84</td>
<td>44</td>
<td>79</td>
<td>138</td>
</tr>
<tr>
<td>1965</td>
<td>80</td>
<td>45</td>
<td>83</td>
<td>130</td>
</tr>
<tr>
<td>1970</td>
<td>59</td>
<td>45</td>
<td>78</td>
<td>31</td>
</tr>
<tr>
<td>1971</td>
<td>63</td>
<td>46</td>
<td>79</td>
<td>85</td>
</tr>
</tbody>
</table>

Source: Annual Reports, South Dakota Agriculture 1955-71, Crop and Livestock Reporting Service.

Changes in Demand

One of the more obvious factors responsible for changes in fertilizer retailing has been the substantial increases in demand for fertilizer (Table 2). In South Dakota the demand for the three major plant nutrients (nitrogen, phosphate, and potash) increased nearly 10-fold from 1955 to 1970. In absolute terms, nitrogen was the leader with an increase of 72,058 tons, but potash showed the fastest rate of growth with an over 40-fold increase. By type of fertilizer, dry was the leader in absolute terms with 185,192 tons, a 7.5-fold increase. But liquid increased at a faster rate with 16.5-fold. With such increases in demand entry, an expansion into fertilizer retailing in South Dakota was clearly encouraged and promoted.

Changes in Farmer Behavior Patterns

Associated with the increased demands for fertilizers has been a change in services demanded by farmers. Farmers have become more and more concerned with the services offered by fertilizer retailers. Quality products, custom application, delivery, and credit are only some of the ancillary services that retailers must provide for their customers (Table 3). Providing these services has imposed large capital requirements on fertilizer retailers as well as on other echelons in the supply system. The impact has been to increase the need for vertical integration and to increase volume. These new merchandising strategies have provided an opportunity for new entry and competition in the industry. At the same time, however, they have forced small and less able retailers out of business.
Table 2. Demand for Fertilizer 1955-1970

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogen</td>
<td>5,904</td>
<td>7,379</td>
<td>25,261</td>
<td>77,962</td>
</tr>
<tr>
<td>Phosphates</td>
<td>8,559</td>
<td>7,260</td>
<td>16,981</td>
<td>49,763</td>
</tr>
<tr>
<td>Potash</td>
<td>246</td>
<td>136</td>
<td>1,815</td>
<td>10,180</td>
</tr>
<tr>
<td>Totals</td>
<td>14,709</td>
<td>14,825</td>
<td>44,057</td>
<td>137,905</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>By Type</th>
<th>1955</th>
<th>1960</th>
<th>1965</th>
<th>1970</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry</td>
<td>28,467</td>
<td>27,753</td>
<td>91,983</td>
<td>213,659</td>
</tr>
<tr>
<td>Liquid</td>
<td>7,739</td>
<td>7,248</td>
<td>10,012</td>
<td>51,081</td>
</tr>
<tr>
<td>Gas</td>
<td>1,695</td>
<td>1,097</td>
<td>3,779</td>
<td>28,019</td>
</tr>
<tr>
<td>Totals</td>
<td>37,901</td>
<td>36,098</td>
<td>105,774</td>
<td>292,749</td>
</tr>
</tbody>
</table>

Source: Annual Reports, South Dakota Agriculture 1955-70, Crop and Livestock Reporting Service.

Changes in Distribution and Transportation

The commodity nature of the fertilizer business (lack of product differentiation between products), coupled with the characteristic seasonal pattern consumption, makes the logistics of fertilizer distribution and transportation key factors in determining competitive cost and location of a retailer. In order to store enough product to meet peak demands, retailers often must spend considerable sums of money or rely on suppliers to provide them with storage facilities. Blending and mixing plants require large capital investments and must be able to obtain the desired nutrients to produce the desired products. These factors have contributed to various means of insuring a dependable and timely flow of raw materials. Again, vertical integration has enabled at least some firms to undertake these functions.

In turn, suppliers have banded together in efforts to improve the transportation of the products to the retailer and blender or mixer. Anhydrous ammonia and solutions are now moved through pipelines. The Williams Brothers' pipeline terminating in Sioux Falls is the closest in South Dakota, although there are other lines in Iowa and Nebraska. Jumbo rail cars are another improvement that has lowered the cost of transporting fertilizers. Where rails don't run, the product is hauled by truck.
Table 3. Frequency of Services Offered and Not Offered by Fertilizer Retailers in South Dakota, 1971

<table>
<thead>
<tr>
<th>Type of Service</th>
<th>Number of Plants Offering Service</th>
<th>Number of Plants Not Offering Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit</td>
<td>146</td>
<td>30</td>
</tr>
<tr>
<td>Cash Discount</td>
<td>114</td>
<td>62</td>
</tr>
<tr>
<td>Pick-up Discount</td>
<td>77</td>
<td>99</td>
</tr>
<tr>
<td>Off-season Discount</td>
<td>116</td>
<td>60</td>
</tr>
<tr>
<td>Delivery Charge</td>
<td>83</td>
<td>93</td>
</tr>
<tr>
<td>Rental of Spreading Equip.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Dry</td>
<td>82</td>
<td>8</td>
</tr>
<tr>
<td>B. Liquid</td>
<td>38</td>
<td>2</td>
</tr>
<tr>
<td>C. Anhydrous</td>
<td>42</td>
<td>4</td>
</tr>
<tr>
<td>Complete Custom Application</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Dry</td>
<td>59</td>
<td>41</td>
</tr>
<tr>
<td>B. Liquid</td>
<td>30</td>
<td>10</td>
</tr>
<tr>
<td>C. Anhydrous</td>
<td>39</td>
<td>7</td>
</tr>
<tr>
<td>Record Keeping</td>
<td>67</td>
<td>110</td>
</tr>
<tr>
<td>Soil Testing</td>
<td>141</td>
<td>35</td>
</tr>
<tr>
<td>Tissue Testing</td>
<td>51</td>
<td>125</td>
</tr>
<tr>
<td>Volume Discount</td>
<td>65</td>
<td>111</td>
</tr>
<tr>
<td>Education &amp; Technical Advice</td>
<td>121</td>
<td>55</td>
</tr>
</tbody>
</table>

Source: Survey of Retail Fertilizer Dealers in South Dakota.
An important development in the rail system, however, may have an important implication for fertilizer retailers who depend on trains. From 1958 to 1971, the total mileage of trackage has declined more than 10 percent. The largest declines have come within the past five years with 61.28 miles in 1967, 53.20 in 1968, 65.50 in 1969, 153.91 in 1970 and 77.75 in 1971. Loss of rail transportation means that firms along this trackage will have to find other modes to transport their product. This may mean a competitive disadvantage or relocation. The extent of this change is not yet known, but fertilizer retailers should be aware of the potential disadvantages that may arise from lack of rail transportation.

Changes in the Structure of Fertilizer Retailing in South Dakota

These factors along with others that have not been considered here have played a major role in changing the structure of the fertilizer retail industry in South Dakota. The extent of the changes are shown in (Table 4).

From 1967 to 1970 there was an estimated increase of 85 dealers. By 1971, however, this number had decreased to a net of 35 dealers over the five-year period. The drop in number of dealers from 1970 to 1971 was in major part due to the cumulative effect of the price squeeze, inadequate volume (size) and new competition in the form of providing costly services.

During this same time period the number of retailers providing blending and mixing functions increased from 93 to 160. This indicates a trend toward vertical integration in the structure of South Dakota's fertilizer industry.

Table 4. Structure of Fertilizer Retail Plants in South Dakota, 1967-71

<table>
<thead>
<tr>
<th>Year</th>
<th>Dealers</th>
<th>Mixers and Blenders</th>
<th>Mixers, Blenders, Dealers</th>
<th>Commercial Dealers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1967</td>
<td>700</td>
<td>10</td>
<td>93</td>
<td>406</td>
</tr>
<tr>
<td>1968</td>
<td>707</td>
<td>3</td>
<td>129</td>
<td>410</td>
</tr>
<tr>
<td>1969</td>
<td>751</td>
<td>12</td>
<td>168</td>
<td>436</td>
</tr>
<tr>
<td>1970</td>
<td>851</td>
<td>7</td>
<td>174</td>
<td>491</td>
</tr>
<tr>
<td>1971</td>
<td>749</td>
<td>7</td>
<td>160</td>
<td>441</td>
</tr>
</tbody>
</table>

Source: Survey data from Fertilizer Retailers in South Dakota and Department of Agriculture, Division of Plant Industries, South Dakota.
Summary and Conclusions

We have viewed several major factors that have been responsible for changes in strategy and hence changes in the structure of the fertilizer retail industry in South Dakota. The total marketing system concept requires that we examine not only how strategies were arrived at, but how these strategies were used. Certainly other factors should be considered and if given more time we could expand this limited paper and look at such questions as:

1. How can we improve the profitability of our retail distribution and marketing system?

2. How can we effectively combine the marketing of fertilizers with other products going to the same markets?

3. Could a market increase in the service functions offered to farmers, including custom application, soil testing, farm management advice, improve the profitability of the retailer?

Perhaps the most important conclusion that can be drawn from the changes with some degree of certainty is that the transformation of the industry from its previously existing pattern to some different form is not completed. Marketing of fertilizer is continually changing and each firm is following a somewhat different philosophy. Managements' use and understanding of the marketing concept will determine the final character of the fertilizer retailing industry.
Trading in grain futures is not a new idea. It is a marketing tool that has been in existence since the time of the Civil War. Grain futures have been used mostly by grain merchandisers in the past. Recently grain futures are being considered by more farmers as an alternative method of marketing.

Commodity futures markets were established to provide a buying and selling medium throughout the entire year and also to help reduce wide price variations from harvest to harvest. Consumption and processing of grain remain quite constant throughout the year but marketing of cash grain is usually irregular. The commodity futures market is designed to reflect all known factors and register a price for the present, and into the future.

Farmers are showing increased interest in grain futures for several reasons.

1. Larger farms and increasing yields mean farmers market more bushels of grain than before.

2. Increasing costs of farm production without corresponding increases in market prices of grains creates a greater need for price protection, and for the knowledge of how to accept a price at other than the actual delivery time. Some farmers have come to realize that a certain number of bushels of grain at a given price is necessary for them to operate at a profit. The necessary price may not be available at harvest time, but there may be several other opportunities throughout the crop marketing year to attain that price.

3. Changes in machines and methods have made possible the harvest of many more bushels of grain a day. This larger amount of grain delivered in a shorter period of time has a tendency to depress prices at harvest time. It also burdens handling, conditioning and transportation facilities. Thus, the time of lowest price for farm crops is often during harvest.

4. Farmers are realizing that storing grain, even in their own bins, has a cost for which they should and can be compensated.
5. The owner of an inventory that isn't hedged, is in one sense a speculator whether he realizes it or not. Farmers are important holders of inventory. They hold more inventory than any other commodity group and, consequently, they are often speculating with large sums of grain and money.

6. Knowledge has in part disproved the old myth that grain futures are solely a means to speculate. An increasing number of farmers are now realizing that grain futures can be used in reducing risks rather than in adding to them.

Major Uses of Grain Futures by Farmers

There are four major ways a farmer can use the grain futures market to good advantage. Some of these uses involve shifting speculation from cash to the futures market while others absorb risk through hedging. The four major ways are:

1. To establish a price for a specified number of bushels of grain for a crop that is presently growing, or one that is intended to be planted, or a crop that is to be delivered later, and that is not eligible as a cash crop for satisfactory current or deferred cash prices.

2. To establish a price for a specified number of bushels of grain in storage, which is to be delivered sometime later. This is a hedge in which a certain return can be "locked in" and thus compensates the inventory holder for some of the costs and risks incurred in storing grain.

3. To speculate on the price of a grain that has been grown and for which storage is not wanted or is not available.

4. To protect in part against a price rise for feed grain that is to be purchased at a future date.

There are several other uses of the grain futures market by farmers, three of which will be described briefly in this publication:

1. Futures market as a source of market information.

2. Futures market as a determinant of what to plant where there are cropping alternatives.

3. Futures market as an aid to borrowing money.

Local Variations

The local cash price relationship to the futures price varies from area to area. Thus a farmer should know the usual cash difference over or under
the futures for his area before he makes a final decision to trade in the futures market. Local price variations can be either over or under the futures prices. However, in most places the local cash price will be under the futures price.

A farmer may determine the current relationship between his local elevator price for a commodity by subtracting that price from the futures price. Historical relationships are important to determine what would be considered normal.

Preparing to Trade in Futures

Before the decision is made to enter the futures market, several important variables must be considered. These include (1) the commodity to be traded, (2) the choice of market, (3) futures month or contract in which to establish a position, (4) the time to execute the contract, (5) the decision to buy or to sell, and (6) the type of order to place with a broker.

For the Upper Midwest there are three futures markets in which a person can trade the grains raised in the area. The Minneapolis market is the major market for hard red spring wheat and also has considerable trade in winter wheats. Minneapolis also has future markets in corn. Chicago is the major futures market in the Midwest for the corn, oats, soybeans and soft red wheats, while Kansas City is the primary hard winter wheat market. Grain sorghum futures are traded through the Chicago Mercantile Exchange (not to be confused with the Chicago Board of Trade).

Futures Trading Months

The contract months for which commodities may be traded varies slightly from market to market and by commodity as shown in the table below.

Table 1. Futures Trading Months

<table>
<thead>
<tr>
<th>Chicago Board of Trade</th>
<th>Chicago Board of Trade</th>
<th>Chicago Mercantile Exchange</th>
<th>Minneapolis Grain Exchange</th>
<th>Minneapolis Grain Exchange</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn-oats-wheat</td>
<td>Soybeans</td>
<td>Sorghum</td>
<td>Wheat</td>
<td>Corn</td>
</tr>
<tr>
<td>March</td>
<td>November</td>
<td>March</td>
<td>March</td>
<td>March</td>
</tr>
<tr>
<td>May</td>
<td>January</td>
<td>May</td>
<td>June</td>
<td>May</td>
</tr>
<tr>
<td>July</td>
<td>March</td>
<td>July</td>
<td>September</td>
<td>July</td>
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<tr>
<td>September</td>
<td>May</td>
<td>September</td>
<td>December</td>
<td>September</td>
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<tr>
<td>December</td>
<td>July</td>
<td>December</td>
<td>August</td>
<td>September</td>
</tr>
<tr>
<td>August</td>
<td>September</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
One may trade in any futures month he chooses any time the contract is offered in the markets. The significance of the marketing month is not when one may begin trading, but is rather when trade in that futures must be terminated and closed out. For example: The December futures may be opened for trade in January, and actually terminates the middle of the following December. Trading may be done any time during those approximate 11 months.

For the person who cannot take the risk and inconvenience of taking or making delivery of the actual grain (this includes most traders), the contract should be terminated a month ahead of time. If one sold 5,000 bushels of December corn on May 21, he must then purchase 5,000 bushels of December corn in the same market sometime between May 21 and the middle of November. Or if one bought 5,000 bushels of July corn on November 1, he must sell 5,000 bushels of July corn in the same market sometime between November 1 and the middle of the following June. A position in one future cannot be offset by the purchase or sale of another future or another commodity. One cannot close out the sale of May corn with the purchase of an equal amount of July corn, nor can one close out Chicago corn with an offsetting trade in Minneapolis corn, nor can one close out the sale of corn with the purchase of oats.

A March futures was established because March marks the end of winter and thus it is possible to assess winter damage, use or disappearance of supplies, and to assess Southern planting intentions. A May future was established because May marks the completion of most planting and also is the time for opening the shipping season on the Great Lakes. A July future is used because July marks the completion of most grain harvest in the South. A September future was established because the season marks the completion of most small grain harvest in the northern states. The December future is the season for marketing corn and is also the close of shipping on the Great Lakes.

The soybean futures contract months were arranged by and for the convenience of those trading in the market. There are seven maturity months established for soybean traders. November is designated as a trading month instead of December because soybeans are harvested a month earlier than corn. There is a January soybean contract because this is historically a heavy trading month. July usually is a time of greatest processor demand. There is a futures contract for every other month, with the Month of August added for cleaning out old stocks and preparing for new crops.

To Establish the Price for a Pending Crop

Every farmer may recollect a time when he would have gladly sold his crop while it was still growing or perhaps even before it was planted — if he could be assured of a certain price. It is often possible to sell a crop at a price that would be satisfactory as much as 10 or 11 months ahead of harvest by using new crop grain futures.
This can perhaps be best demonstrated with an actual example from 1968. That year the carryover corn stocks were estimated to be the highest in years and another large crop was anticipated. Farmer X realized from the bearish crop news that he would not have storage space for the crop of corn he hoped to produce and would have to deliver some corn to the market at harvest time. At that time, on May 21, 1968, he said he would gladly sell a portion of his crop for a dollar a bushel delivered in November. He was informed that Chicago December corn was $1.21 1/2 cents per bushel and a sale of that future would assure him of close to $1.00 per bushel for his crop of corn in November. (Chicago December corn had been 3 cents higher in February 1968.) Farmer X then, on the advice of his broker, sold 5,000 bushels of Chicago December corn at $1.21 1/2 on May 21, 1968. On November 1 he had picked, shelled and delivered his corn to the elevator. The price for number 2 corn was 90 cents a bushel; 10 cents less than his goal of $1.00. On that same day, November 1, Farmer X bought 5,000 bushels of Chicago December corn at the market price $1.10. This closed out his futures contract with a gain of .11 1/2 cents a bushel ($1.21 1/2 - $1.10). Therefore, Farmer X realized $1.01 1/2 per bushel basis number 2 corn for what he delivered to the elevator (90 cents cash price + .11 1/2 futures gain).

One does not have to wait until the grain is harvested and sold to exact a profit from the sale of futures. This large profit from advance sale can be added to the price of cash corn whenever it is sold. A large gain in an advance sale should be accepted and the position closed out.

The "Basis" Hedge or Fixing the Price of Grain in Storage for Later Delivery

This most important, most predictable, and usually the most rewarding method of trading in the futures is perhaps the least understood by farmers of any of the futures trading techniques. The grain futures have been explained many times as moving up or down with the cash market, and in the same amount.

Seldom do the futures move in perfect unison with the cash market; and the greatest profit opportunities are in the imperfect action of cash and future market. This spread in price between the futures market price and the cash price is called "basis." The basis for an area is determined by subtracting the local price from the grain future being used.

Once a person has established what is a good hedging basis for his area, he can "lock in" a certain return. Once a good basis hedge (sell future — hold cash grain) is made, it makes no difference to the hedger whether the market goes up or down as the profit from a basis hedge comes from a narrowing of the spread between cash and future prices. The basis movement is actually influenced by demand for storage. At a time of heavy movement of grain, demand for storage is great. This influences the cash price to spread further from the futures where the cash price is normally less than the future price. Then later as the demand for storage lessens, normally and historically the future and cash price work closer together again.
To Speculate on the Price of Grain for Which Storage is Not Available or Not Wanted

There may be several reasons why a farmer may sell his crop at harvest time even though the price may seem low. Some of these reasons are:

1. There may be no available storage either on the farm or at the elevator.

2. There may be an urgent need for the cash from the sale of a crop.

3. One may wish to escape from the shrink that comes from storing grain.

4. The grain may not be of storable quality.

Whatever the reason for marketing the grain instead of storing, if the farmer has a strong feeling the market would go up he could buy the grain future of his choice and still be a holder of grain inventory. In the case of corn sold for $1,00 a bushel, only about one-tenth of that amount of money is needed to hold a similar amount of bushels in the futures market.

To Establish Feed Costs in Advance

Many livestock feeders require more grain than they can produce so they must buy additional feed at some time. It is natural to want to purchase this feed at the lowest possible price and to protect against a substantial price increase at the time one needs the grain. Just as the grain futures market can be used as a hedge against a decline in the price, it can also be used to hedge against a large increase in price. Grain processors for many years have used the futures market for purchasing future needs and to establish an approximate price for those grains.

Grain Futures as a Source of Market Information

The grain futures can be used as a source of information even if one never traded in the futures. For example, the relationship between the nearby futures and the deferred futures could tell one what the majority of traders are thinking the price for a specific grain is going to be. This knowledge could help a farmer decide whether to sell or store his crops. Also the relationship of the futures prices of the different grains could give one an idea as to whether one grain is overpriced, or another underpriced, and what adjustment between them seems logical. There are many observations one can make from the grain futures if he has an understanding of them.

Grain Futures as a Determinant of What to Plant

A farmer at times has difficulty in determining what to plant when he has a choice of two or more crops. If a farmer had some evidence of what
the price would be for the respective crops in the fall, it would help in making a judgment of what to plant. This evidence of deferred prices for grains can be observed in the futures markets, and the farmer may then either sell the future to establish a price, or plant in anticipation of what the grain traders think the price will be.

Grain Futures as an Aid in Borrowing Money

Agricultural lending agencies are becoming more interested in the possible use of futures in establishing a price for their collateral. A 1968 study* at South Dakota State University found that while hedging may not be vital to gaining credit, and it did not at that time affect the interest rates charged, it did have an effect on the size of the loans granted.

It is conceivable in the near future that hedging could be a determinant in whether one receives a loan at all. It also could allow a higher percent of actual value to be loaned on inventory.

Other possible uses of the grain futures by a farmer are to evaluate current local cash grain price or future delivery contracts, and also as a factor in whether to sell the grain or feed livestock.

*Powers, Mark, Bulletin 545, June 1968, Hedging, Forward Contracting and Agricultural Credit, South Dakota State University, Agricultural Experiment Station.
AGRI-BUSINESS OUTLOOK FOR SOUTH DAKOTA IN 1972

Arthur W. Anderson
Extension Economist
South Dakota State University

I. General Economic and Business Outlook

In spite of a number of disappointing indicators, the Nation's economic activity continues to improve. Retail sales are above a year ago, housing remains strong, consumer income gains are substantial, and corporate profits have expanded. However, inflation, though apparently finally slowing down, remains a persistent problem. Also, unemployment is still relatively high.

Gross National Product (GNP), which is the total value of all goods and services produced in the U.S., is expected to increase by 9 to 9 1/2 percent during 1972. Six percent of the increase is expected to be real economic growth, with the remaining 3 to 3 1/2 percent being inflation. In dollar terms, GNP will increase by almost $100 million; and total GNP by year end will be well over the $1.1 trillion dollar mark. (See Table 1.)

Most key indicators point to a growing economy in 1972. The number of consumers (population) will increase by more than two million. Housing starts are expected to increase. Investment for plant and equipment by industry shows positive signs of increasing. Industrial production is projected to rise almost 7 percent, in sharp contrast to last year's decline of 1 percent.

With inflation slowing down, confidence of consumers is expected to pick up, and consumer spending could increase as much as 5 percent this year to off-set the high savings rate of consumers last year. Unemployment is expected to decrease to near 5 percent by year end, compared to 5.9 percent at the beginning of the year.

Prices are likely to continue their upward climb in 1972, but not as fast as last year. The cost of living, as expressed by the Consumer Price Index, may rise 3.0 to 3.3 percent, down somewhat from the 4.3 percent pace in 1971.

Goals to be hoped for in 1972 are increased employment, a decrease in the rate of inflation, an increase in real economic growth, and an improvement in the U.S. balance of payments and foreign trade situation.

The economic outlook in 1972 will be largely influenced by actions under Phase II of the Nation's new economic policy. A retail price advance of no more than 2 or 3 percent annual rate by the end of the year has been adopted as a goal, with the Cost of Living Council coordinating activities of a Pay Board and a Price Commission. Prices for raw agricultural products will not be included under Phase II, at least for the time being. The new economic policy will hopefully lend greater stability to the prices farmers must pay for production inputs. This will tend to aid net farm income.
Table 1. Major Economic Indicators

<table>
<thead>
<tr>
<th></th>
<th>1971</th>
<th>Forecast 1972</th>
<th>Change</th>
</tr>
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<tbody>
<tr>
<td>Gross National Product, GNP (Bil.$)</td>
<td>1,047</td>
<td>1,145</td>
<td>+9%</td>
</tr>
<tr>
<td>Population, U.S. (Millions)</td>
<td>207.0</td>
<td>209.1</td>
<td>+1%</td>
</tr>
<tr>
<td>Total Personal Income (Bil.$)</td>
<td>857.0</td>
<td>925.5</td>
<td>+8%</td>
</tr>
<tr>
<td>New private housing starts (Millions)</td>
<td>2.05</td>
<td>2.09</td>
<td>+2%</td>
</tr>
<tr>
<td>Plant and Equip. expenditures (Bil.$)</td>
<td>81.2</td>
<td>88.0</td>
<td>+8%</td>
</tr>
<tr>
<td>Industrial Production index (1967=100)</td>
<td>106.4</td>
<td>114.0</td>
<td>+7%</td>
</tr>
<tr>
<td>Civilian Employment (Millions)</td>
<td>79.1</td>
<td>80.3</td>
<td>+1%</td>
</tr>
<tr>
<td>Unemployment rate (percent)</td>
<td>5.9</td>
<td>5.4</td>
<td>lower</td>
</tr>
<tr>
<td>Consumer Price index (1967=100)</td>
<td>121.3</td>
<td>125.3</td>
<td>+3%</td>
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II. Agricultural Outlook

Economic prospects for agriculture in 1972 are highlighted by (1) favorable livestock prices, especially in the first half of the year; (2) unfavorable grain prices and likely considerable shifts in the cropland use, and (3) hopefully, reduced pressures on farm and ranch operating costs as Phase II guidelines seek to diminish inflation.

Returns to farmers rebounded somewhat in late 1971, after a disappointing first half of the year. The improved level of returns shows signs of continuing for most of 1972. Demand for meat is exceptionally brisk. Prices to livestock producers should continue favorable at least into mid-1972. With expanded acreages and high yields, the 1971 harvest was record large. Grain prices fell sharply. But increase feed use, direct government purchases, and greater price support loan activity are expected to cushion the impact on crop prices.

Larger farm receipts and net incomes are anticipated for the first half of 1972, as marketings and government payments increase and prices remain firm. Large advances in consumer after-tax incomes will mean strong consumer demand. A slowing down in the rise in farm production expenses, due partly to lower feed costs, is another encouraging factor. All things considered, realized net farm income should rise materially above the low levels of the first half of 1971.
All in all, 1972 should be a reasonably good income year for agriculture. Following are brief statements on the "situation" and "market prospects" for specific major farm commodities important in South Dakota.

**Corn**

**Situation:** The 1971 corn crop in the U.S., estimated at over 5.5 billion bushels, was by far the largest ever. It exceeded by 35 percent the short 1970 crop by 4.1 billion bushels. Added to a carryover of 665 million bushels of old corn, the total supply of 6.2 billion bushels this season is the largest supply on record by more than 500 million bushels. Although feed use and exports may be up somewhat, they will total much below the 1971 crop. Hence, carryover next October will increase sharply to about 1.4 billion bushels, the highest since 1963.

**Market Prospects:** Corn prices last fall were below the loan rate in many areas, but strengthened considerably during the winter. Prices over the next several months will continue to depend largely on the amount of direct government purchases of corn, export sales to foreign countries, and the extent to which farmers continue to put corn under loan. Corn placed under loan is running more than triple a year ago. Prices this spring and summer will be influenced by farmers' response to the 1972 Feed Grain Program, and prospects for the 1972 corn crop.

**Other Feed Grains**

**Situation:** Grain sorghum production last year in the U.S. also set a new record. The largest ever, it was up 28 percent above the 1970 crop. Oat output was down slightly from 1970, but oats carryover from previous crops was large. The barley crop was up 14 percent. Production of these three feed grains in 1971, plus the large corn crop, totaled 206 million tons of feed grains, compared to 159 million tons in 1970, or a 30 percent increase. Hence, the 1971 feed crops were much more than adequate to meet anticipated 1971-72 feed use for livestock and for exports.

**Market Prospects:** Prices for these three feed grains will likely follow trends in corn, the dominant feed. Prices probably will continue around 10 to 15 percent below a year ago, with some seasonal strengthening during the spring and early summer. The overall goal of the 1972 Feed Grain Program is to reduce feed grain production from the large 1971 output by further cutting back planted acreages. Optional additional payments are offered for setting aside more than minimum requirements. Set-aside payment rates are increased for 1972, and barley was brought into the program. Soybeans may be planted instead of feed grains without losing feed grain base.

**Soybeans**

**Situation:** The soybean situation in 1972 is much different from corn and quite the opposite. Soybean supplies are tight. Although the 1971 soybean crop at 1.2 billion bushels was the largest ever, carryover of old beans was small. Hence, the total supply this season is estimated about 4 percent smaller than last year. Therefore, fewer soybeans are available for domestic use or export this year, and the price outlook continues very favorable.
Market Prospects: With a forced reduction in use, the price of soybeans will remain strong and stronger, at least until prospects for the 1972 crop become known. Demand for soybeans continues active. The 1971 crop will move at favorable prices, possibly averaging $3 for the season. The 1972 crop loan level will be maintained at $2.25 per bushel, the same as during the previous 3 years. A current soybean-corn price ratio of around 3 to 1 should tend to encourage increased soybean plantings in 1972.

Wheat

Situation: Increased supplies, decreased use, and weak prices darken the economic picture for wheat producers during the year ahead. The 1971 U.S. wheat harvest was the largest ever, topping 1.6 billion bushels for the first time. Added to old stocks, total supplies for this 1971-72 marketing season are near 2.4 billion bushels, the highest since 1962. While supplies are up, wheat use this season may be considerably lower. Less wheat will be fed, because of plentiful feed grains and low feed prices. Exports are stumbling, because of prolonged dock strikes at shipping ports and increased wheat harvests in many traditional importing countries. The 1971 world wheat crop was large. With less wheat fed and exported, our U.S. carryover prior to any 1972 harvest could be near a billion bushels, largest in a decade.

Market Prospects: Farmers prices for wheat, which have edged up only slightly since last fall, will likely run close to the $1.33 per bushel national average of last season. Wheat producers participating in the 1971 and the 1972 Wheat Program will receive certificate payments to add to the market price for their wheat. In addition to the large current supplies of wheat, winter wheat plantings last fall for the 1972 crop were increased over 9 percent, nationally. They were upped 25 percent in South Dakota. Growing conditions last fall and this winter have been favorable, and a record harvest of winter wheat could result. To curtail excessive production in 1972, the USDA on January 10 announced an additional voluntary set-aside provision in the 1972 Wheat Program. Farmers have the option of setting aside additional cropland, for which acres they will be paid 94¢ a bushel times their normal farm yield.

Slaughter Cattle

Situation: There were nine percent more steers and heifers on feed in the nation's feedlots on January 1, 1972 than a year ago. All of the increase in feeding was in the weight groups that would reach slaughter finish from about March and later. Fed cattle marketings from April through the first half of 1972 will likely run 6 to 11 percent greater than shipments last year. Marketings in the second half of 1972 can also be expected to be up, because the cattle inventory is rising and cattle-feed price relationships since last fall have favored expanded feeding. However, the price effects of increased beef output developing in 1972 may be offset by the sharp reduction in pork output this year.

Market Prospects: Demand for beef is favorably strong and may increase even more in 1972. Fed cattle prices are currently $6-$7 higher than a year ago. They will probably weaken moderately from current levels later this
spring, and may continue under some pressure through the early summer, in view of anticipated 6 to 11 percent increased marketings. Heavier slaughter weights could become a problem and would add to the beef tonnage on the markets. Cheap feed and high-priced feeder cattle may entice finishers to feed cattle to heavier slaughter weights. This should be avoided because it would tend to drive cattle prices downward. With orderly marketings, 1972 prices for fed cattle could average out above the 1971 average.

Feeder Cattle

Situation: It appears evident that more cattle will be available for feeding in 1972. The beef calf crop was up 4 percent in 1971 and will rise more in 1972. The nation's total cattle inventory rose by about 2.3 million head during both 1969 and 1970. It likely increased by a full 3 million or more during 1971. All of the increase was in beef rather than dairy animals, with a larger proportion of young beef animals than a year earlier. However, strong slaughter cattle prices, abundant feed supplies, and sharply lower corn prices have pushed feeder cattle prices higher.

Market Prospects: Feeder cattle prices, usually seasonally highest in spring and summer, kept going up last fall and into the winter due to very active demand from feedlots for replacement cattle. Choice feeder steers this spring have been selling $4-$6 per cwt. higher than a year ago. Feeder cattle prices in 1972 will tend to change in line with changes in the fed cattle market. There may be a further seasonal rise in feeder cattle prices this spring, but there probably will be some seasonal decline next summer and fall.

Hogs

Situation: On December 1, 1971, farmers in the U.S. had 54.5 million head of hogs and pigs in various stages of growth, being finished for market. This was a reduction of 6 percent below the numbers of a year earlier. It means that there will be 3.5 million less hogs marketed in the first half of 1972. Also, hog producers have indicated that they will have 10 percent fewer sows farrow during the spring of 1972. This will tend to reduce second-half hog slaughter by a similar amount.

Market Prospects: In view of anticipated limited supplies, hog prices will run steady to strong during most of 1972. The usual late winter bulge in marketings brought a brief price break in March and early April. Following this, prices should rise to a summer peak in July or August of at least $25-$26. From that point, prices may drift seasonally weaker to a late fall low, but should stay well above 1971 levels. All in all, it looks like a very favorable price year for hog producers.

Sheep and Lambs

Situation: Lamb slaughter may be down in 1972 following the unusually large slaughter last year. Even though the 1971 beginning inventory was lower and the lamb crop was 4 percent smaller, sheep and lamb slaughter in 1971 totaled about the same as in 1970. Droughty conditions in some areas
induced producers to market older animals, which offset the decline in slaughter lambs. The 1972 lamb crop could be off by as much as 5 percent, indicating smaller supplies for the slaughter market in the second half of 1972.

**Market Prospects:** Lamb prices are expected to remain steady to strong this spring in contrast to the sharp break in late 1970 and early 1971. Slaughter lamb prices strengthened somewhat late in 1971 and early 1972, with Choice and Prime lambs at Sioux Falls selling around $29. Prices may follow a normal seasonal pattern, showing further strength into spring months, then declining during the last half of the year. In general, prices should run $1 to $2 above 1971 levels.

**Dairy**

**Situation:** Total milk production in the U.S. during 1971 was up about one percent above the 117.4 billion pounds produced in 1970. With prospects for only a small decline in dairy cow numbers, and a steady 2 percent gain in milk per cow, production may rise another one percent or more in 1972. Behind this projected increase are these factors: the largest supply of herd replacements since 1960; sharply reduced feed costs; and record-high milk prices to producers. Wage-price restraints may help slow down the relentless rise in dairy production costs.

**Market Prospects:** During 1972, with increased milk production, a rise in commercial milk sales and consumer use will be needed to prevent an increase in government support purchases. After the first quarter (or April 1), farm milk prices will depend on the level of dairy price supports and support purchases, and on pricing in Federal order markets. Assuming that price support levels and Federal order pricing remain unchanged, prices farmers receive for milk in 1972 will average very close to 1971 levels. No major milk price change is now foreseen, but if any, it will be slightly upward.

**III. Trends in South Dakota Agricultural Income**

During each of the past four years, 1968 through 1971, agricultural income in South Dakota has gone over the one billion dollar mark. The 1971 cash farm income totaled $1,133,000,000. It was slightly higher than the previous record high in 1970.

Of the 1971 total cash income, $828 million resulted from the sales of all livestock and livestock products, compared to $811 million in 1970 and $779 million in 1969. Livestock, as a category, made up 73 percent of total cash agricultural income in 1971. Cash receipts from the sale of crops in the state amounted to $227 million, up somewhat from both 1970 and 1969. Cash sales of crops, as a category, accounted for 20 percent of total income in 1971.

Government payment in cash to farmers in South Dakota were lower in 1971, amounting to $73 million from all types of farm programs, compared
with $92 million the previous year and $94 million in 1969. Government farm payments, as a category, accounted for the remaining 7 percent of 1971 cash agricultural income, compared with 8 percent in 1970 and 9 percent in 1969.

With continuing inflation and sharply rising costs of farm production inputs, agricultural production expenditures have increased faster than the increases in cash receipts or gross income. This is apparent in Table 2. Total Production Expenditures in the state went up from $736 million in 1969, to $782 million in 1970, and further upward to $823 million in 1971. These are annual increases of 6.3 percent and 5.2 percent in production expenditures, compared to increases of only 3.2 percent and 2.7 percent in total cash receipts. (It should be pointed out here that these figures on "production expenditures" are estimates of total cash operating costs, depreciation, and expenses paid, and do not include interest on farm investment, unless interest was paid, nor value of farm operator or family labor, unless wages were paid.)

Table 2. South Dakota Agricultural Income

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<thead>
<tr>
<th></th>
<th>1969</th>
<th>1970</th>
<th>1971</th>
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<tr>
<td>(In millions of dollars)</td>
<td></td>
<td></td>
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<tr>
<td>Sales of Livestock</td>
<td>779</td>
<td>811</td>
<td>828</td>
</tr>
<tr>
<td>Sales of Crops</td>
<td>196</td>
<td>200</td>
<td>227</td>
</tr>
<tr>
<td>Government Payments</td>
<td>94</td>
<td>92</td>
<td>78</td>
</tr>
<tr>
<td>Total Gross Income</td>
<td>1,069</td>
<td>1,103</td>
<td>1,133</td>
</tr>
<tr>
<td>Production Expenditures</td>
<td>736</td>
<td>782</td>
<td>823</td>
</tr>
<tr>
<td>Net Agricultural Income</td>
<td>333</td>
<td>321</td>
<td>310</td>
</tr>
<tr>
<td>Total Number of Farm Units</td>
<td>47,500</td>
<td>46,500</td>
<td>45,500</td>
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<tr>
<td>Average Net Per Farm</td>
<td>$7,010</td>
<td>$6,903</td>
<td>$6,813</td>
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As a result of the production expenditures increasing faster than gross cash receipts, net farm income for the state is estimated to be down to $310 million in 1971, compared with $321 million in 1970 and $333 million in 1971.
Even on an average per farm or ranch unit basis, and allowing for a reduction in the number of farms of about 1,000 less farms each year, net agricultural income per farm went down slightly to $6,813 in 1971 compared with $6,903 in 1970 and $7,010 in 1969.

The emphasis is clearly on the need for more inflation control and a reduction in the costs of farm production inputs such as machines, motors, repairs, supplies, buildings, insurance, and taxes.

IV. Importance of Agriculture in Our State's Economy

The Business Research Bureau of the School of Business at the University of South Dakota, Vermillion, annually publishes pertinent information on the levels and changes in personal income for South Dakota and its neighboring states. These are compiled from data obtained from the Office of Business Economics, U.S. Department of Commerce, and the Survey of Current Business. The most recent reports currently available on all personal incomes received by South Dakotans are for the year 1970.

A comparison by types of industry of the various sources of all civilian personal incomes in South Dakota for the years 1969 and 1970 is shown in Table 3. As can be noted, Agriculture ranks as the top source. Agriculture maintained its first place ranking during 1970, in spite of dropping from almost 27 percent of the total in 1969 to 24 percent in 1970. (By way of explanation, it should be noted that Agricultural Incomes in this tabulation pertains not only to net farm income but also to farm property rentals, and farm wages received as personal incomes.)

Government moved into second place as an industrial source of personal income in 1970, with 19 percent of the total. Wholesale and Retail Trade remained at around 18 percent, approximately the same as in 1969. All types of Services (personal, business, repair, lodging, professional, amusement, recreation, social and related services) accounted for almost 14 percent in 1970, slightly higher than in 1969.

Manufacturing, of both durable and non-durable goods, provided about 8 percent of personal incomes both years. Next in order of importance during 1970 were Transportation, Communications, and Public Utilities with almost 6 percent; Construction 4.6 percent; Finance, Insurance and Real Estate 3.9 percent; Mining 1.2 percent; and all other industrial sources 0.5 percent.
<table>
<thead>
<tr>
<th>Industry</th>
<th>1969 Amount</th>
<th>% of Total</th>
<th>1970 Amount</th>
<th>% of Total</th>
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<tbody>
<tr>
<td>Agricultural Incomes</td>
<td>398</td>
<td>26.9</td>
<td>366</td>
<td>24.0</td>
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<tr>
<td>Government Sources</td>
<td>261</td>
<td>17.7</td>
<td>294</td>
<td>19.2</td>
</tr>
<tr>
<td>All Wholesale and Retail Trade</td>
<td>268</td>
<td>18.1</td>
<td>283</td>
<td>18.5</td>
</tr>
<tr>
<td>All Personal, Business, Professional, Social, and Recreation Services</td>
<td>194</td>
<td>13.1</td>
<td>211</td>
<td>13.8</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>118</td>
<td>8.0</td>
<td>128</td>
<td>8.4</td>
</tr>
<tr>
<td>Transportation, Communications, and Public Utilities</td>
<td>85</td>
<td>5.8</td>
<td>90</td>
<td>5.9</td>
</tr>
<tr>
<td>Construction</td>
<td>70</td>
<td>4.7</td>
<td>70</td>
<td>4.6</td>
</tr>
<tr>
<td>Finance, Insurance, and Real Estate</td>
<td>57</td>
<td>3.9</td>
<td>59</td>
<td>3.9</td>
</tr>
<tr>
<td>Mining</td>
<td>20</td>
<td>1.4</td>
<td>19</td>
<td>1.2</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>0.5</td>
<td>8</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,478</strong></td>
<td><strong>100.0</strong></td>
<td><strong>1,528</strong></td>
<td><strong>100.0</strong></td>
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(Editors Note: Mr. Lawrence was presented with a plaque designating him as the Economics Departments' Honored Agri-Businessman of the Year by Dr. John E. Thompson, Department Head. Mr. Lawrence's remarks follow.)

Most of my life has been spent in the field of agriculture. First, as an operator and secondly, as a Manager of a Production Credit Association.

As I look back over the years there are some tremendous changes that have taken place. During the early 1940's we saw a transition from the horse-drawn type of agriculture to the mechanical age. As this transition took place it soon became evident that large sums of money would be needed to make the change. During the period from 1940 or abouts, up to the present time, I question if there was ever a time when adequate credit was not available for the good farmer. During the mechanical period we saw other improvements being made including the use of fertilizer, hybrid seed, and chemicals. This also called for additional operating capital.

During this period the college of agriculture and especially our agronomist did an outstanding job of producing the technical know-how for farm people to make use of these new services. As we look to the future in the area of credit, we can see nothing on the horizon now that would indicate a shortage of money in the next decade or two. The Governor of The Farm Credit System has made this comment quite frequently.

As I look down the road for the next decade or two, it would seem to me that there are a number of areas where farm people are going to need help. One of these areas would be record keeping. The other area would be in the marketing of farm produce.

I believe it is very important that the first area receive the most emphasis, as in this day and age when units are getting larger and more complicated a good set of records showing cost of productivity is of utmost importance if we are to be successful in the marketing of that produce. I also believe that it is the salvation of the family type farm to have records and become involved in a marketing program.

It seems to me, as agri-business leaders, we should stress the need of helping the family type farm to compete in today's economy. The very large corporate type farms usually supply their own needs and consequently do not need small agriculture business firms to meet those needs. As I see it, the Economics Department of the University is the logical vehicle to provide the information and technical skills necessary to implement a
meaningful record system and help establish a marketing system for farmers. I would encourage all of us to work with the University in this direction.

In conclusion, I wish to take this opportunity to thank Dr. John Thompson and the Economics Department of South Dakota State University in presenting this award to me. Thank you.
My assignment puts me in the middle of a long and complex area of discussion. To begin with I have to assume that we are in some kind of agreement about what economic development means. Some years ago I would not have worried about this assumption because I'm sure we would all have been talking about industrial growth and increasing population. Now it has become apparent that agreement does not exist. Increasing population and population pressures are considered at best a mixed blessing and industrial growth is a topic of much controversy. Perhaps we can still all agree that increasing per capita income is a legitimate goal of economic development. For my purposes, however, I'm going to view economic development as something closely akin to what is usually taken as industrial or capital growth. I will largely exclude the problems associated with the very small rural communities as I view these as distinct problems requiring separate solutions.

Even with a narrow view of economic development a second problem lies in the absence of a statistical base that is usable in measuring or quantitatively evaluating the availability of capital in a regional or state context. I am aware of many studies that have attempted to measure the net flow of funds into or out of sub-regions of the national economy through the financial institutions. I am reluctant, however, to use their findings due to the incompleteness of the data used in such studies and their restricted perspectives of the total financial flows pattern. Too often such studies end up in taking an adverse view of a specific financial institution, usually the banking system, and wind up with a generalization that a net outflow of savings is bad and that net inflows are good, much as we used to speak of favorable and unfavorable balances of trade. This view of financial flows is much too simple and fails in the understanding of the institutional structure and economic mechanism involved in the movement of funds. I did attempt to measure the flow of funds into investment in South Dakota by looking for capital investment data and, again, came up shorthanded. What I did find suggests that capital investment in South Dakota in recent years has fallen short of the national average growth rate in capital investment but I don't know what to do with such a finding.

The more I look into the problem of capital availability I become more uncomfortable with arguments that suggest that a state, such as South Dakota, should in some way capture the savings of its residents or in other words in some way block the flow of funds out-of-state. If we take a long historical perspective of capital investment in South Dakota we will probably find considerable fluctuation in the inflow and outflows of funds and, in the final analysis, this is exactly what we would expect in a dynamic economy. I'm sure that in the last few years we might well show a negative
flow of funds from South Dakota or that savings have left the state rather than entered it for capital investment. We cannot take this as evidence, however, that capital is not available in South Dakota or that South Dakota is not getting its "fair share" of funds.

Given this rather negative start I would like to shift slightly and talk about the general case of capital availability and examine some of the fundamental factors that determine its availability for a particular region. Further I would like to suggest some things or actions that can be taken to enhance the availability of funds or at least, to ensure a "fair share" of funds from the national economy.

Availability of capital for economic development in a sub-region of a national economy, such as the state, is primarily a function of the distribution of the total amount of funds available in the economy. Furthermore, in the U.S., national policy has traditionally attempted to be neutral in a distributive sense. Another way of putting this is that the allocation of money for various uses has been left, by and large, to market forces. Thus, the movement of funds into any region or state depended in large part on the ability of various sectors within that region or state to effectively attract funds. The market mechanism as used here is believed to result in the most effective allocation of funds and resources. The issue then, is not the availability of funds per se, but the allocation of a finite amount of funds among various users.

For a variety of reasons a degree of dissatisfaction exists with the market mechanism as an allocator. On the one hand the mechanism is not perfect and certain sectors of the economy do operate at a disadvantage. In the national money market, and that's the only money market we have, big firms compete with small firms. The difficulties in evaluating risk and the relatively high cost of lending to small businesses are well-known and it is not surprising to find a reluctance on the part of institutional lenders to finance small distantly located businesses given their easy access to large corporate borrowers. Difficulties in acquiring funds in this type of environment is obvious and has an important bearing on the availability of credit in the state of South Dakota.

On the other hand, even if we assume that the market results do reflect an economically acceptable standard, these results are not always considered to be socially desirable. Our social value systems encompass far more than the economically efficient solutions and, frequently the economic solution does not seem to be able to cope with the seemingly intractable problems such as pollution, urban pressures and deteriorating rural areas. Thus, we find government at most levels stepping in to block the market mechanism and to reallocate funds in a manner more in line with social priorities.

To some extent the lack or slowness of economic development in states such as South Dakota is a reflection of both shortfalls in the allocation system and to a degree the market is being more and more supplanted as the allocator of capital funds. Public policy decisions have led to a variety
of programs such as the Small Business Administration, Farmers Home Administration, low income housing and various tax advantages that are allowed to state and local government financing. Current concern over lagging regions or states is also behind a series of proposals that would direct a greater allocation of funds to broad regional development purposes rather than to specific projects. The Nixon rural development revenue-sharing proposal is a leading example of a whole variety of such schemes which attempt to increase availability of financial resources to rural areas.

These programs hold promise of a greater availability of funds for regional development or economic development uses. I could not guess, of course, when this money will be made available or what allocation method will be used. I would guess, however, and it would be my preference, that a large proportion of such monies will be used to maintain and improve living standards of those people who either through economic necessity or personal preference continue to reside in the small rural communities which primarily service agricultural production. These are communities that some people describe as dying but which never seem to disappear and in many respects are vital to the agricultural sector. Their problems in maintaining adequate levels of public services are great and outside financial assistance is a necessity. These are the communities, however, that are unlikely to participate to a large extent in capital and industrial development, nor should we expect them to. The allocation of funds to these communities will have to be made on the basis of living standards and the welfare of the people in these communities rather than on the competitive economic rationales such as rate of return on investment.

An evaluation of rates of return in the allocation of economic resources is critically important in my view to the process of economic development as defined earlier. As yet we have not come up with a mechanism that will replace the market, or surrogate for the market as capital budgeting, cost-benefit analysis, and systems analysis, that will perform the resource allocation function in an economically desirable manner. At best we will undoubtedly rely on some form of competitive mechanism to allocate the largest share of financial resources used in regional development and the conditions in which that allocation takes place will continue to be pretty much as in the past.

To recap, we will be faced with a finite supply of financial resources that will be distributed to a large number of users on the basis of most valuable or economically beneficial use and the availability of capital to South Dakota will depend upon the ability of users in South Dakota to compete for that pool of funds. We will continue to find that money as a resource unlike others, is highly mobile and has little respect for geographic boundaries or ideas of local loyalty. Finally, states such as South Dakota will not be able to internally generate sufficient savings, even if the state could hold on to these savings, to accumulate sufficient capital for acceptable growth rates. In other words regional industrial development will depend on the acquisition of outside financial resources. Faster economic development, then, will depend in part upon the state's ability to increase its share of the total financial pool and in part on the efficiency with which it allocates its funds within its area.
I argue that the allocation of capital funds will largely be done on a market basis or process closely related to the market mechanism. The allocation of private capital funds will certainly follow this pattern although the process has been and will be altered by the use of government fiscal tools such as tax incentives and tax penalties designed to encourage or discourage fund flows into various sectors of the economy. Allocation of public funds will undoubtedly involve more qualitative judgments and less emphasis will be placed on such measures as rates of return from investments. Nevertheless it is my belief that unless a radical change occurs in the thinking of the country, some sort of cost-benefit analysis will always be made and those capital projects which show promise of greatest returns will get the greatest share of the public funds. Thus, there will continue to be competition for funds either from the public or private sector.

Knowing that some form of competition will still be the rule of the day, some actions are being considered to improve the financial system to ensure that the flow of funds for economic development activities, particularly in the more remote areas with respect to the financial market, is equitable. Some of the changes being discussed are designed to improve the economic communication between various sectors of the economy and the money market and are designed to equalize competitive footing. These changes would include the development of secondary markets for loans made by country banks or rural financial institutions in order to increase their ability to attract nondeposit liabilities. Risk pooling and other devices to offset competitive disadvantages of small financial institutions (or businesses or governments) along with loan insurance schemes for loans are also being evaluated. Other changes being considered involve improvement in the structure and organization of financial institutions so as to reduce the friction on the funds within the economy. Finally there is a need to review and update laws that may place a state in a competitive disadvantage for capital funds; for example, the use of inappropriate usury laws or restrictions on the use of nonlocal funds by businesses. Availability of capital may also be impeded by tax systems that operate to discourage the inflow of funds.

Improving these areas or unblocking the channels through which funds flow will assist in attracting capital and will certainly offset some of the disadvantages resulting from remoteness of the major financial market. Such changes, however, will not ensure capital flows into the state. Such flows are dependent upon relative returns or benefits that will be gained from the investment of the capital. In recent years we have learned much about the investment process associated with industrial development. For example, we know that the mere existence, even when well-known and publicized, of an abundance of resources, whether they be a large labor pool or raw materials, is not sufficient for industrial development or growth. Further, many of the old economic theories of location and investment no longer fit the complexities of modern society. Industrial development in the modern society is dependent upon a skilled labor force that is adaptable to changing technology rather than the number of people. Investment is dependent upon the capability to combine capital and technology to meet
the broad requirements of a national market. We are now concerned with complex economic systems that involve external economies and impact of agglomeration upon business decisions. These considerations plus a variety of items falling under the "quality of life" category are determinants of business location decisions. The existence of these factors in a given location implies a community of fairly large size with an extensive system of public and private services. This kind of focus then moves us to be less concerned about the availability of capital in an absolute sense and more concerned with our ability to develop an economic environment that will attract capital.

In the past the promotion of industrial development has frequently taken the form of subsidies or inducements by local units of governments to attract industries. Given our experiences with these methods they should be viewed with considerable apprehension. These methods may lead to undesirable competition among communities within the region, to the erosion of the local tax base and to unwarranted subsidies to businesses plus an inequitable distribution of the tax burden. From experiences in other countries and other states, it seems that at a minimum, government should ensure that offers by communities be rationally designed and that uniform standards be developed and applied among all communities. The disorganized procedure that now prevails not only leads to inequitable and undesirable solutions but unnecessarily impedes the allocation process, such as it is, of the market mechanism. At best such methods for developing industry should be used only in conjunction with a solid statewide plan of economic development. It appears to me that the day of ad hoc development planning by individual communities is passed. Regional or state planning emphasizing points of growth will be a necessary step if economic development through industrial growth is to be a viable goal of the state.

The dynamic industries, those that are termed growth industries, also are those that look to a wide range or public investment for support. This commonality between business and the public has become part of the modern society and industrial growth implies greater public investment. It is up to the public authorities to ensure adequate and equitable revenue raising systems to finance the investment. They also must balance the use of funds between subsidies used to attract businesses and the use of funds to maintain and expand the public capital plan needed to support economic growth as well as maintain the general level of public services. They must carefully allocate public expenditures to avoid duplication and to get maximum effectiveness from all investments. This applies to the timing and the location of public investment and, again, we come back to the need of a statewide policy and plan if we are to maximize the effectiveness of public expenditures in terms of economic development.

Thus in conclusion, I have shifted grounds entirely from worrying about the availability of capital economic development to the real problem concerning the ability of the state of South Dakota to attract capital. I think that we can assume that the funds will be available for projects that can demonstrate their worth. Our concern then should not be with how much
money is available but how well do we compete for the money that is in the economy and how efficiently are these funds allocated and invested within the state. This is where our development efforts must be and this is where we can make some positive gains toward the improvement of the standard of living of the people of South Dakota.
LABOR AND EMPLOYMENT TRENDS AND OPPORTUNITIES IN SOUTH DAKOTA

William Bergman, Associate Director
Business Research Bureau
University of South Dakota, Vermillion

I thought maybe we could chat a little while about South Dakota, interwine some National expectations relative to employment, and examine some industrial and occupational trends in our State as suggested by observation and studies, including 1970 census data.

South Dakota has over 76,000 square miles of land which ranks it 16th of the 50 states in land area. As a point of reference, all of the six New England states, New Jersey, Delaware, and the District of Columbia could be placed within our State and there would still be land left over. We also have over 1,000 square mile of water area. The state of Rhode Island could be dropped in the water area of South Dakota and not show.

The 1970 census told us that there were 666,257 people living within this vast expanse of different land-forms. This represents a decrease of 14,257 people or a drop of 2.1 percent from the tally of the 1960 census.

Professor Marvin Riley and Mr. Robert Wagner of the Rural Sociology Department here at South Dakota State University addressed themselves to the question, "What would South Dakota's population increase have been from 1960 to 1970 if it had kept all of its natural increase and not gained or lost any population due to people moving into or out of the State?" They found that the total number of births from April 1, 1960 to April 1, 1970 was 143,495 (down 21.1 percent from the previous decade). Subtracting the 65,192 lost by death, the natural or expected population increase was 78,303. Now if the State had neither lost nor gained population through migration we would have added this 78,303 natural increase to the 680,514 living in the State in 1960 and our population on April 1, 1970 would have been 758,817 people. However, the actual population figure on that date was 666,257 so this means that the State lost 92,560 people through net out-migration between 1960 and 1970. This loss is less than the approximate 94,000 lost in the previous decade, but still a lot of people.

Where did all of these people go? Information derived from Office of Business Economics data based on social security mobility records indicate that they went everywhere, but seem to prefer staying in the Midwest. Our neighboring states are quite attractive to our out-migrants, especially Minnesota and Nebraska, with Iowa to a lesser degree. California and Washington have been strong destinations in the past. I hesitate to generalize on migration patterns without additional study, but if I were to do so I would suggest:

1. Number of migrants is inversely related to distance of migration.
2. Young people migrate more readily than older people.

3. Higher educated people migrate more readily than less educated people.

4. People in high status occupations migrate more readily than those in lower status occupations.

5. Single men migrate more readily than married men.

6. Children in a family seem to have little effect on the propensity to migrate.

7. Once a person has moved once, subsequent moves are easier.

*Items 3 and 4 seem to be related to the following factors:

a. These people seem to have more information about job opportunities.

b. There is a more nation-wide demand for their skills.

c. They are more likely to be transferred or initially moved by their employers.

d. They can better afford to move because of higher incomes.

e. They have less risk of unemployment.

Now there are people who do in-migrate to South Dakota. In 1970, about 72 percent of the native population were born in the State, with the remaining 28 percent born in other states, born abroad of American parents, or at sea, or in an outlying area of the United States. The North Central Region was the area of birth for two-thirds of the native population born out-of-state. This region includes the general geographic area between Ohio and Iowa and North Dakota and Kansas.

Do the people of South Dakota have any education? You bet they do. The population of the State is better educated now than it was in 1960 and it will be still better educated at the end of 1970. In comparison with the Nation as a whole we are not uneducated country bumpkins. In fact, in 1960 for the U.S., 41.1 percent of the people had a high school education or better while 42.1 percent of South Dakotans had the same education. The statistics now reveal that 53.4 percent of the present residents of South Dakota have a high school education or better. Over 31 percent have graduated from high school, 13.6 percent have one to three years of college, 5.4 percent have completed 4 years of college and an additional 3.3 percent have completed 5 or more years of college.

How many people are in South Dakota's labor force? In 1970 there were 253,410 persons 16 years old and over in the labor force. However, 4,885 (1.9%) were in the Armed Forces which means that the Civilian Labor Force
was comprised of 248,525 people. This is almost the same number (248,380) reported in the 1960 census for those 14 years and over. If we add to the 1970 total the 5,994 14 and 15 year olds reported in the labor force we have a grand total Civilian Labor Force of 254,519 which amounts to a 2.5 percent increase in labor force for the decade.

Now with fewer people in the State and more people in the Civilian Labor Force, this must mean that the labor force participation rate has increased. If we divide the Civilian Labor Force 14 years and over by the number of people in the State 14 years and over we get a labor force participation rate of 52.7 percent. Now this is interesting because in 1960 the labor force participation rate was higher than that -- 54.2 percent. Investigation shows that we now have better than 25,000 more people (25,266) in the 14 years and over ages than we did in 1960. Over 72 percent of our total population is now 14 years and over whereas in 1960 just 68 percent were of these ages. This means that we do have a slightly larger Civilian Work Force, but that we also have more people of working age, so as a consequence the total labor force participation rate dropped about 1.5 percentage points. The labor force participation rate for males has dropped from 77.1 percent to 69.2 percent.

We are seeing an interesting development as regards women and the world of work in South Dakota. More of the women are workers -- in 1960, 31.5 percent of the women were workers. In 1970, 36.7 percent of the women worked. This says that the labor force participation rate for females has increased. Another phenomena is that more of the workers are women. In 1960, 29.1 percent of the Civilian Labor Force were women. This rose to 35.5 percent in 1970. This trend suggests that every girl should include in her educational decision-making processes the possibility that she will want to work outside the home at some period of her life. The early 20's and the 40's are especially popular ages for working women.

Now we've mentioned the Civilian Labor Force (also called the Civilian Work Force), but we didn't define it. The Civilian Labor Force consists of those people who are working and those who do not have jobs, but are looking for work. Of the 254,519 in the Civilian Labor Force 14 years and over in South Dakota in 1970, over 96 percent were employed. The other side of the coin shows that 9,927 were unemployed and looking for work, which is an unemployment rate of 3.9 percent. This is a drop from the 4.1 percent unemployment rate of the State in 1960 and more favorable than the Nation's 4.9 percent in 1970. In 1971 the National unemployment rate was running about 6 percent while South Dakota's was about 3.5 percent.

Back in 1776 a Scottish economist and philosopher named Adam Smith had a book published titled Wealth of Nations in which he set forth the idea that there is a system without conscious central direction that guides the performance of a free economic system whereby households and enterprises do the reasoning and the planning and changes occur as if guided by an "invisible hand." The theory holds that producers tend to supply the things consumers demand. Even today the "invisible hand" controls in large part the products that are produced, thereby affecting the growth and decline of industries, which in turn affects the jobs people work at, since each industry requires a specific occupational mix. Of course there are other
factors affecting industrial growth and employment opportunities, such as changing technology, legislation, the availability of skilled manpower, and emerging occupations, but by and large, industry patterns determine tomorrow's jobs.

The Bureau of Labor Statistics of the U.S. Department of Labor does extensive research on manpower trends and employment outlooks for the United States. Mr. Harold Goldstein, Assistant Commissioner, has given us some insights into America's manpower needs for the seventies** to which I'll interject the most recent data available on South Dakota, which may suggest the trends of the future.

The most dramatic recent employment trend in the United States has been the rapid growth in the service-producing industries such as Wholesale and Retail Trade, Finance, Transportation, and Government, and the slower growth of goods-producing industries such as Manufacturing, Construction, Mining, and Agriculture. The output of goods is expected to rise to unprecedented levels in the 1970's, but this will reflect increasing productivity more than employment growth. Employment is expected to decline in Mining and Agriculture, and growth in Manufacturing is expected to be at a slower rate in the 1970's than during the 1960's. The bright spot in the goods-producing industry picture is the Construction Industry which is expected to grow at a fast rate throughout the decade.

Table 1 presents the employed 14 years old and over by industry for South Dakota for 1960 and 1970 and the percentage change that occurred during the decade.

It will be noticed that the following service-producing industries showed growth between 1960 and 1970: Wholesale and Retail Trade (+12.9%), Finance, Insurance, and Real Estate (+25.6%), Entertainment and Recreation Services (+12.6%), Professional and Related Services (+53.6%) and Public Administration (+7.4%). On the other hand the goods-producing industries didn't fare quite as well. Agriculture, Forestry, and Fisheries lost over 20,000 people and went down 28.3 percent. Mining was down 5.5 percent, and Construction dropped 19 percent. The bright spot here was in Manufacturing. Durable Goods Manufacturing gained almost 70 percent during the decade. This industry category includes such items as Furniture, Primary and Fabricated Metals, Machinery including Electrical Machinery, Motor Vehicle and Other Transportation Equipment, and Stone, Clay, Glass, and Concrete Products. Non-durable Goods Manufacturing didn't hold up however, and employment in this industry dropped 9.5 percent during the decade. This category includes Food and Kindred Products which dropped off 21.4 percent, Printing and Publishing which was down 12.3 percent and such other non-durable goods as Chemicals, Rubber, Plastics, and Leather Products. On balance however, the total Manufacturing industry posted a healthy 11.4 percent increase during the 10 year period. For all industries, employment grew by 2.7 percent in South Dakota between 1960 and 1970.

**American Vocational Journal, April, 1971.
### Table 1. Employed Population 14 Years Old and Over
 Classified by Industry, South Dakota, 1960-1970

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<thead>
<tr>
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<tr>
<td>Agriculture, Forestry, Fisheries</td>
<td>72,811</td>
<td>52,222</td>
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<td>Mining</td>
<td>2,359</td>
<td>2,229</td>
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<td>Construction</td>
<td>15,277</td>
<td>12,367</td>
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<td>Manufacturing, All</td>
<td>15,823</td>
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<td>Manufacturing, Durable Goods</td>
<td>4,166</td>
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<td>Manufacturing, Non-durable Goods</td>
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<td>Transportation, Communication, and Public Utilities</td>
<td>12,147</td>
<td>12,115</td>
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<td>Wholesale and Retail Trade</td>
<td>44,955</td>
<td>50,751</td>
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<td>Finance, Insurance &amp; Real Estate</td>
<td>6,641</td>
<td>8,338</td>
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<tr>
<td>Business and Repair Services</td>
<td>4,882</td>
<td>4,550</td>
<td>-6.8</td>
</tr>
<tr>
<td>Personal Services</td>
<td>13,309</td>
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<td>Entertainment and Recreation Services</td>
<td>1,688</td>
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<td>Professional and Related Services</td>
<td>31,183</td>
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<td>Public Administration</td>
<td>11,216</td>
<td>12,041</td>
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<td>Industry Not Reported**</td>
<td>5,882</td>
<td>10,583</td>
<td>*</td>
</tr>
</tbody>
</table>

*Not meaningful

**Not allocated to a major group

Source: 1960 Census of Population

1970 Census of Population Computer Tapes

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What is the outlook for the broad classes of occupations in the 1970's?

For one thing, we see increased need for more professional and technical workers. A country that will attempt to clean up its environment, provide more medical services, and continue technological advancement will need an increasing number of Professional, Technical, and Kindred Workers.

Employment of Managers, Officials, and Proprietors is expected to rise at a slower rate than total employment. Changes in the scale and type of business organization have affected this occupation group in different ways. The spread of chain stores, supermarkets, and discount houses has eliminated many self-employed proprietors of small businesses. On the other hand, the number of salaried managers and officials has increased, with the net result that it is expected that these opposing trends will prompt a slower growth of employment in this field to 1980.

Sales Workers should continue to increase at a slightly faster rate than expected of total employment. Remembering that the Wholesale and Retail
Industry is expected to show rapid growth, it follows that the demand for sales personnel should also rise; perhaps at a slightly lower rate because of increased self-service operations and other marketing innovations. The demand for part-time sales people is expected to be quite strong.

Service-producing industries such as Finance, Insurance, and Real Estate will continue to provide many employment opportunities for Clerical and Kindred Workers throughout the 1970's. This is the largest single white-collar group and it is affected by the changing computer, office equipment, and communications technological advances. Some of these advances slow up employment growth while others accelerate it. On balance, the number of clerical workers is expected to grow at a considerably faster rate than total employment in the decade.

Craftsmen, Foremen, and Kindred Workers is expected to grow more slowly than total employment to 1980. The manufacturing industry employs more workers than any other industry, but only one in five is a craftsman. Most of the expected increase in craftsmen employment will be due to the strong growth in the Construction industry where one out of every two employees is a craftsman.

The occupations grouped together as Operatives and Kindred Workers form the largest occupational group in the Nation. Included in this category are most factory workers and truck drivers. Technological advances will undoubtedly slow employment growth in this category in the years ahead. A growing motor truck freight business will contribute to expanding demand, but it is expected that the growth rate for the category will only be about half that expected of total employment.

Nonfarm Laborer employment is not expected to show any growth even though Manufacturing and Construction employment does rise. These are the principle employers of nonfarm laborers, but these and other industries are switching to labor-saving devices and away from manual labor.

Service Workers, except Private Household is expected to continue to set a fast employment pace. A growing population, expanding business activity, more leisure time, and higher income levels all contribute to the demand for the wide variety of jobs and skill requirements that constitute the Service Worker Group. The one service work area that is not dynamic is the Private Household Worker category. It's not that the lady of the house does not want help, it's because fewer people want to do this kind of work and with better education and good job opportunities in other occupations, it is hard to attract the private household worker.

Farm Occupation employment in the United States has dropped 52 percent since 1947 and is expected to slide from 3.5 million in 1968 to 2.6 million by 1980. This has been a long-term trend related to many things. Rising productivity has resulted in a diminishing need for farm workers. Farm technology advances, better fertilizers, seeds, and feed permit increased production with fewer workers. Mechanical harvesters have decreased the need for seasonal labor. Innovations in livestock and poultry feeding and
improved milking systems allow more efficient handling of a greater volume of production with fewer workers. The continued trend toward larger and more efficient farms also limits farm employment. The implication of all this is that the major openings for farm workers will be replacement openings. These replacements will need to be more highly educated and skilled than their predecessors to cope with improved farm technology and mechanization. Now farm employment is just one aspect of Ag Industry. What about Agri-business? Are programs being provided to meet the needs of persons entering any off-farm job that requires agricultural skill and knowledge? The total Agri-business field goes beyond farm labor occupations. In fact it crosses all of the occupational categories mentioned except nonfarm laborers. Looking at an occupational-industry matrix we see many occupations related to agriculture. There are architects, engineers and physical science technicians, bookkeepers, stenographers, blacksmiths, carpenters, electricians, mechanics and repairmen, assemblers, truck drivers, cleaning ladies, and watchmen. There are many people assisting the farmer in his work. We must provide skilled and competent personnel to meet his needs.

Table 2 presents the employed population 14 years old and over in South Dakota by occupation for 1960 and 1970. Like the industry categories, South Dakota's occupational trends also seem to quite closely follow those of the Nation. Between 1960 and 1970, Professional, Technical, and Kindred Workers rose over 27 percent, Clerical and Kindred Workers grew by almost one-third, and Service Workers, except Private Household posted better than a 53 percent increase. Recording percentage decreases during the decade were such categories as Laborers, except Farm (-9.7%), Farmers and Farm Managers (-28.7%), Farm Laborers and Foremen (-31.5%), and Private Household Workers (-28.1%).
Table 2. Employed Population 14 Years Old and Over
Classified by Occupation, South Dakota, 1960-1970

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<tr>
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<tbody>
<tr>
<td>Professional, Technical, and Kindred Workers</td>
<td>23,046</td>
<td>29,358</td>
<td>+27.4</td>
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<tr>
<td>Managers and Administrators, except Farm</td>
<td>20,890</td>
<td>21,351</td>
<td>+2.2</td>
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<tr>
<td>Sales Workers</td>
<td>14,690</td>
<td>15,288</td>
<td>+4.1</td>
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<tr>
<td>Clerical and Kindred Workers</td>
<td>22,365</td>
<td>29,687</td>
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<td>Craftsmen, Foremen, Kindred Workers</td>
<td>21,807</td>
<td>22,266</td>
<td>+2.1</td>
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<td>Operatives and Kindred Workers</td>
<td>21,654</td>
<td>21,885</td>
<td>+1.1</td>
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<tr>
<td>Laborers, except Farm</td>
<td>8,508</td>
<td>7,679</td>
<td>-9.7</td>
</tr>
<tr>
<td>Farmers and Farm Managers</td>
<td>55,361</td>
<td>39,498</td>
<td>-28.7</td>
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<tr>
<td>Farm Laborers and Foremen</td>
<td>15,911</td>
<td>10,902</td>
<td>-31.5</td>
</tr>
<tr>
<td>Service Workers, except Private Household</td>
<td>20,369</td>
<td>31,224</td>
<td>+53.3</td>
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<tr>
<td>Private Household Workers</td>
<td>6,397</td>
<td>4,599</td>
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<td>Occupations Not Reported**</td>
<td>7,175</td>
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<td>Total Employment</td>
<td>238,173</td>
<td>244,592</td>
<td>+2.7</td>
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</table>

*Not meaningful
**Not allocated to a major group

Source: 1960 Census of Population
1970 Census of Population Computer Tapes
From my perspective as Director of Admissions at South Dakota State University, I often come in contact with students who are just finishing
their high school career and looking forward to continued education or some sort of vocational involvement. I think the noticeable change that I
have observed in the last few years is that concerning the positive nature of vocational direction as it relates to perspective students. Whereas in
the past there seemed to be little concern with regard to ultimate vocational placement, present circumstances reflect just the opposite. More and more
students are vitally concerned with what kind of employment opportunities face them upon graduation from college. They are, needless to say, affected
daily by the news media as well as personnel within their high schools concerning this matter. They are literally bombarded with materials that would
indicate a decrease in the job market, thus producing a feeling of insecurity on their part regardless of choice. Much of this information is over simplified,
and generalized but nevertheless has a rather specific impact on the student concerned.

We have attempted to convey to students the importance of considering vocational opportunities in the framework of a four year period for it will
be in fact four years in most cases before they enter the job market. Thus the application of present indications of abundance or shortage do not necessarily apply to the student just beginning his educational program. In addition, it is important to point out that most undergraduates with good academic preparation are being placed and it is generally those with poor academic records that are not. This is a consideration that the entering student must keep in mind as he works his way through a four year program.

In brief, I think the important function performed by the Admissions Office must be one of carefully and rationally examining to the best of
our ability the potentiality a student has in a particular area and his ultimate probability for placement. This, it would appear to me, applies equally to the high school counselor who deals with the student in a much more intimate relationship. To sell a picture of pessimism and gloom would be to sell short both the ultimate potentiality of the individual and the general economic condition of the country.

One other point upon which I would like to touch concerns the general attitude of young people coming from farm or ranch backgrounds. Time and
time again I am told by them that it is their intention to pursue a degree which would eventually remove them from the farm or ranch. In most cases,
this feeling has been fostered by an attitude conveyed through their parents. I can't help but feel that parents who continually degrade the dignity of
involvement in agriculture at the farm and ranch level are the ones who must be blamed for the general attitude that the kind of vocational choice is undesirable. Needless to say, we as a society need to emphasize the virtues of such involvement, but as long as the practitioner himself downgrades the profession it certainly will not have a great future with respect to our young people.
In January of this year there were 299 graduates. We attempted to find where all were placed. Fifty (50) students did not respond, but we do have information on 249. The 249 includes: placed students, military service, and graduate school.

That which pertains to what we are discussing here today would be the placed students. One hundred thirteen students were placed in positions. Of that 113, 70 students or 62 percent were placed in-state and 43 students or 38 percent found positions out-of-state.

As I have said, since no in-state, out-of-state records were kept in the past, we cannot determine how these statistics compare with past placement of students. Dr. Sundet said, however, that the trend (at least in teacher placement) is that students are being placed in-state more and more each year. He said there may be two good reasons for this: (1) the job market in our sister states may be diminishing and (2) teacher salaries in-state are becoming at least somewhat more comparable to out-of-state salaries. We might assume the same trends for all placement areas.

The success of placing students in South Dakota then would have to be termed as being "very good" — at least in relationship to the number of openings in-state.

I made a list of the number of different companies and industries that have sent representatives to interview on campus throughout the past four years in order to determine the number of out-of-state interviewers in relationship to in-state.

Of the 105 different companies and agencies, 90 or 86 percent were from out-of-state and 15 or 14 percent were in-state. Most of the in-state interviewers were government related agencies.

One factor that should be mentioned is that we do place a number of students both in-state and out-of-state through correspondence with the various companies and agencies. Many students simply find jobs on their own and place themselves.

In summation then, we should note a couple of things: we all know that we, as a state, have an excellent student source for our South Dakota job market, the dilemma is obviously finding jobs to satisfy the student market. Bringing new business and industry into South Dakota is one possible answer, but perhaps we should be looking at our student resource earlier than after graduation. Part-time employment for our college students with our farms,
businesses, industries and local governments can give the student experience that may lead to full-time employment. There are some federal work programs through which the financial burden for personnel on our agencies may be relieved. Two of these are the Emergency Employment Act under Manpower Resource Program and the Federal College Work-Study Program. Under the latter program any non-profit organization throughout South Dakota is eligible to hire eligible students. The Federal government pays 80 percent of the students' salary — the Agency is responsible for only 20 percent. This includes every city's local government in South Dakota — the extension services in each county — all incorporated historical societies throughout the state. And when you hire a sophomore or junior college student, you are getting a pretty professional person in his or her own major field. This factor also affords the employer the opportunity to be somewhat selective in hiring so as to assure themselves that they are getting what they want.