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POSITIONING IOWA

FOR THE 21ST CENTURY

A 20-Year Economic Development Vision

March 1991

Iowa Department of Economic Development



INTRODUCTION

This legislatively mandated long range plan, "*POSITIONING IOWA FOR THE 21ST CENTURY: A 20 YEAR ECONOMIC DEVELOPMENT VISION*", reflects a process to prepare for and anticipate the challenges of the next two decades. The plan is broken into six main sections beginning with a review of planning efforts in the past. Before attempting to develop this long range vision it was necessary to learn from earlier successes and failures.

After learning from the past, a review of Iowa's current experience was required before looking toward the future. Two sections of this plan covering economic forecasts for the next twenty years and analysis of Iowa and its competitors look at our current economic performance and the environment where we compete.

Turning to the future, the plan discusses key trends for the next twenty years and options available when developing economic development policy. The section on options presents the range of program responses to economic development issues and anticipates the service and program delivery of the future.

As an outgrowth of the previous sections in the plan, ten long term strategies are then recommended. The last section of the plan presents a vision of success for the state where these strategies are realized and Iowa's preferred future is described.

GOALS OF THE PLAN

It has been said that when many people do not know what they are going to be doing tomorrow, why then, do they plan twenty years into the future? As will be seen in a later section of this plan previous planning efforts have met with mixed success. The goal of these plans has been to predict and prepare a course of action for a dynamic future. Without these plans little at the State level would have been done about anticipating change.

In many cases the effort, in and of itself, was the most important result of the plan since it made individuals, if only for a moment, look ahead and not be preoccupied with current affairs. Of course a good plan does not neglect what is happening now but offers the possibility that the future can be shaped as a result of past and present work. Having twenty, five-year or annual plans is important so that efforts can be put into a long-term perspective and crisis management approaches can be avoided.

According to strategic planning expert John Bryson, the best result of strategic planning in many cases is strategic thinking. Many times, long range plans have been expected to be playbooks for the future, where the same game is played against the same teams. As soon as something is found to be wrong in the playbook, it is thrown out and a new one is prepared. Of course, everyone realizes with the benefit of hindsight that the game was changing and no matter what we did with the playbook it wasn't sufficient to keep up with the changes. A plan needn't be a playbook. Rather, it should be similar to the program one buys before entering the arena. A well prepared program should identify the players, coaches, and the competition--its record and players, the strengths and weaknesses of each team and what might be the strategy that the respective teams will or should employ.

A good plan should distinguish the main contributors to our state's competitiveness, recognize assets and liabilities and suggest long-term strategies designed to insure the future success of Iowa. A twenty year plan should help us put short-term decisions in the context of a changing environment of which we should be aware. In many cases this is the best result of a plan--the spread of the knowledge that we are functioning in a dynamic environment and that how we deal with the present has strategic consequences that extend well beyond today. What we do today should be considered in terms of tomorrow, next year and the twenty-first century.

PREVIOUS ECONOMIC DEVELOPMENT PLANS

Through the years, many plans have been prepared for Iowa's economic development. Some of these plans have misfired in that they were based on misconceptions of the future. In contrast, some have revealed timeless themes which remain relevant today. It is important to learn from these past mistakes and to take note of sound recommendations which have been offered but have not been adopted.

As early as 1935, the Iowa State Planning Board advised that certain steps should be taken to improve the economic condition of the state. The most pressing problem facing the state was the unemployment emergency brought about by the great depression. A second problem of more enduring importance was the essentiality for long-term state planning with a principal focus on the efficient use and conservation of land resources. The land use problem was viewed as the primary contributing factor of many other problems facing the state.

Another issue which earned attention was the development of recreational and cultural facilities needed to maintain the rural farm population. Human resources development was to be accomplished through educational opportunities. Iowa was cautioned not to lose her youth through a lack of cultural and industrial advantages, a theme which has been echoed in later plans.

The increasing older population was noted during this planning period and this trend was predicted to become more pronounced as time progressed. This forecast is, of course, once again relevant. Although Iowa's income was dominated by agriculture, evidence was pointing to an expansion of non-agricultural pursuits. Educational recommendations included a strong system of continuing education plus the vocational and occupational training of adults.

Small towns were not seen to be in jeopardy in the 1930s. The future economic development of Iowa cities was forecast to be dependent on the growth of three types of business institutions: (1) retail trade, (2) wholesale trade and (3) manufacturing. Rural manufacturing enterprises were presumed to be focused on the use of agricultural products as raw materials.

State economic development plans prepared immediately after World War Two were extremely optimistic. Iowa was presented as possessing a desirable balance of agricultural and industrial development compared to other states. The plans stressed that there was no desire to lose or upset the balance or become a great industrial center.

The definition of balanced development was described as a situation where industrial income equaled agricultural income. Planners thought that no similar piece of land in the world could be nearly as self-sustaining. The key to industrial development was agriculture. The present conditions were favorable and a past record indicated that there would be little change. As the 1980s would indicate, this assumption of little change would not hold forever.

The economic profile of Iowa according to a 1958 plan was characterized by the following features: (1) agriculture was the primary industry; (2) rapid technological changes in agriculture produced surpluses of agricultural products which tended to depress farm prices and surpluses of manpower which tended to restrict employment opportunities; (3) Iowa offered few unique advantages for manufacturing industries except for those related to agriculture; (4) the net growth of population was slow and Iowa was exporting a large fraction of young people. This plan was, therefore, considerably more realistic than the postwar plans in that it recognized strong external forces.

To achieve industrial development sufficient to absorb the whole natural increase of population, it was suggested that Iowa encourage out-migration until the population increase and economy were brought into balance. On the other hand, the pace of industrial development needed to be hastened to provide more employment and raise per capita income.

Iowa's most precious resource was deemed to be her people. It was believed that the state could lead others in demonstrating the great and productive importance of the retirement age groups. Again, these seem to be timeless issues for Iowa.

State agencies were urged to give particular attention to the field of marketing for farm products. The integration of town governments was proposed in order to attract industry, foreshadowing today's movement toward community clusters and area economic development.

To develop opportunities, Iowa needed to keep abreast of new techniques for reducing costs and increasing incomes through research and education. Private and governmental policies were to be reviewed continuously to make certain that none would inadvertently bar the realization of these opportunities. These policies must aid in: (1) the attraction of foreign (out-of-state) companies to erect plants in Iowa, (2) the expansion of Iowa industries already operating here and (3) "home grown" development of new firms.

Iowa was envisioned to be in a position to capitalize on her location and tourist attractions through promotional programs. Through these programs, promoters would encourage new business and industry by calling on prospective firms and attempt to locate others through advertising and publicity. This is, of course, a description of classic industrial development.

During the mid 1960s, the transition from a rural, moderately mechanized, agrarian society with farming the dominant occupation, to a highly mechanized mixed economy of agriculture, agriculturally related industry and general industry and business was recognized. The importance of foreign trade became a major issue and it was realized that states would have to become as competitive as private business in finding new markets and expanding export trade activity. Regrets were expressed that Iowa, unlike the surrounding states, had not initiated trade missions abroad ten years earlier.

A case for regional planning was made which would attempt to provide area-wide planning services necessary to solve area-wide problems on a voluntary and cooperative basis.

Notable topics of interest in 1970 included: improvement in the quality of public administration; geographic distribution of growth and industrial development; the changing role and apparent decline of agriculture in the total economy and social structure; the need for more industry and employment opportunities; a more productive interrelation between higher education and business; conservation of the environment; the need for more leadership involvement by younger persons; and the need for a greater sense of pride and heritage in the state for a better and more accurate self-image. Again, many of these themes remain relevant today.

A plan prepared in 1984 characterized the economic situation of the state as being part of the U.S. economic structural transformation. The nation's reliance on the production of well-established durable goods was diminished as it diversified into service, communications, financial and technology fields. Iowa, due to her mature mix of industries, was seen to be more cyclically volatile than other states.

One proposal to encourage economic development was to create partnerships between the private sector, government and public education. Another idea introduced in this plan was an agricultural trade center to expand the demand in export and domestic markets.

Other themes highlighted in this plan were: the diversification of the economy by marketing Iowa's attractiveness to health-related industries; the investment in research and development by the universities and colleges, with education as a growth industry; a re-examination of the growth potential of the agricultural system; the maintenance of the road system; the need to reach higher levels of educational excellence and promote training opportunities and resources.

In the early 1980s Iowa faced the worst economic crisis since the Great Depression according to a plan prepared in 1986. Moreover the recognition of global competition threatened to change the nature of Iowa's economic base, perhaps forever. State and local efforts need to coordinate to create a cohesive force that targets and distributes available resources.

Diversification of agricultural and non-agricultural sectors was again imperative to economic development. Agricultural diversification required an increase in entrepreneurship to increase the market for these products. The first priority recommendation for the non-agricultural sectors was import substitution. The most accessible markets for Iowa's products needed to be identified, expanded and intensified. Second priority was to encourage exportation of products and the third priority was to diversify "domestic" firms. The use of technology, which could possibly create a large number of jobs, should focus on Iowa's existing strengths, such as agronomy, laser applications and biotechnology.

A regional approach in the form of growth centers was promoted as a means to aid regions with many small towns and to use local economic development funds more efficiently. The structure and interrelationships among economic development organizations needed to be clearly defined with coordinated, central, one-stop information centers for the consumer. A reorganization of the state delivery system to complement new regional delivery systems would avoid duplication and overlap of services, both financial and technical.

The quality of Iowa's labor force was considered very attractive. A concern, appearing again as in other plans, was the outmigration of prime-age workers. General economic improvement and increased job opportunities through incentives, education and training programs would help solve this problem.

Presenting a favorable climate for the expansion and attraction of business was a major portion of the planning agenda. Issues to be addressed were the condition of infrastructure; means of financing; availability of sites; marketing; and the promotion of Iowa's advantages.

The state's economic growth in 1987 was observed to be influenced by both national and international economic conditions. Agriculture and related industries were still the largest exporting producing segment in Iowa, but their income and employment shares were declining. The service sector appeared to provide the most promising potential for an increase in employment possibilities. The expansion of manufacturing jobs seemed unlikely due to national trends, although this indeed happened.

The main objectives set forth in 1987 were to expand and diversify the economic base and to retain business that made up the base. The role the State would play to achieve these objectives was to increase the value of public services; to provide information to change them perceptions of the returns from locating in Iowa; to provide financial, technical, job training and other assistance to business; to change the regulations which affect resource returns; to ensure that state policies were stable and to assist local communities in their economic development efforts.

In 1989, following a recovery of Iowa's economy, the 1987 plan was updated. Considering the recent increase in the employment level, the new plan shifted the emphasis from the previous preoccupation on job creation to the improvement of the standard of living for Iowans and the building of the future capacity of the State to grow and prosper. Iowa needed to become more productive and competitive in the global economy and guard against complacency.

Implementation of certain strategies were essential to the attainment of the plan's goals. Investments in human capital through education and work force skill building, keeping pace with technology, and increasing diversification efforts were methods to promote a stronger economy. Creating a climate for growth, encouraging business investment, and investing in infrastructure were also proposed to generate a favorable impact. Communities were urged to work together. Building a positive image and protecting the environment were yet other measures to advance the economic development mission.

The call for strategies to encourage economic development has been addressed in all the reviewed plans. The portrayal of the ideal has progressed over the years from a "self-sufficient entity" to the realization that Iowa is part of a larger global picture. Regardless of the perception of the economic state, the importance of planning was always advocated.

Many of the dilemmas which have confronted and confront Iowa today have been accurately forecast. The implementation of the recommendations, however, was not always fully realized. As often happens, commendable plans have been set aside or disregarded. This points out the need to better connect strategic planning efforts and implementation. For without follow through, plans simply collect dust on shelves.

IOWA BASELINE ECONOMIC FORECASTS FOR THE NEXT TWENTY YEARS

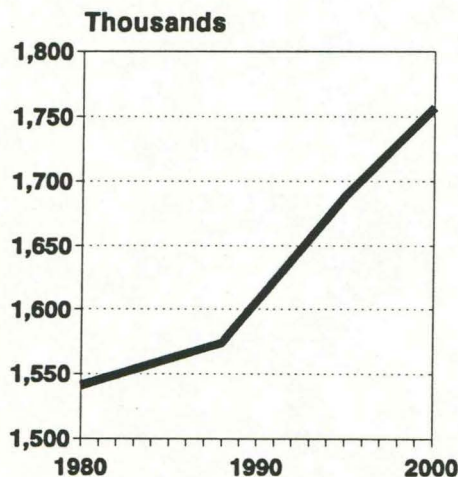
Several private firms and government agencies produce forecasts of economic conditions for states. Two of the most complete sets of forecasts available for Iowa come from Woods and Poole Economics, a private forecasting firm, and the U.S. Department of Commerce's Bureau of Economic Analysis (BEA). Both of these sets of forecasts imply slow, but steady economic growth for Iowa into the 1990s and beyond, in contrast to the decline of the early 1980s.

It should be noted that these forecasts should be considered as baselines--they are based on Iowa's current industrial structure and trends in the U.S. and global economies. Some error is always involved in making forecasts, no matter how well-established the past trends.

Iowa's total employment grew steadily in the 1970s, but faltered and grew very slowly during the early 1980s. As a result of this very slow growth of employment and growth in the available labor force, the state's unemployment rate grew from about four percent in 1978 to over eight percent by 1982. The strong recovery of the late 1980s pushed the unemployment rate back below four percent, a level where it has remained since.

Forecasters expect total employment in Iowa (including both farm and non-farm jobs) to grow slowly in the next two decades, from about 1.6 million today to approximately 1.7 to 1.8 million by the year 2010. Woods and Poole forecasts Iowa employment to grow slower than the national average; the most recent BEA forecast has Iowa growing at about the same rate as the entire U.S.

Iowa Employment Forecast Through 2000



Source: BEA (May 1990)

The unemployment rate for Iowa is expected to remain in a range of about three to six percent through the year 2010--higher during national recessions and lower during expansions.

Earnings

Total earnings by businesses and individuals in Iowa actually declined during the 1980s recession, reflecting a shrinking economy. During the late 1980s, earnings rebounded. Both Woods and Poole and BEA forecast Iowa earnings to grow at about the U.S. average during the 1990s.

Personal Income

Personal income in Iowa followed a path similar to earnings during the 1980s, growing very slowly if at all. As a result, Iowa lagged behind the U.S. in terms of per capita income, falling from a rank of 25th in 1970 to a rank of 30th by 1987.

Both Woods and Poole and BEA foresee stronger personal income growth for Iowa during the 1990s and beyond; Woods and Poole shows much stronger growth than BEA. If the optimistic Woods and Poole forecast is accurate, Iowa will return to the national average in terms of per capita income by the turn of the century and by 2010 Iowa will rank about 18th in terms of this statistic.

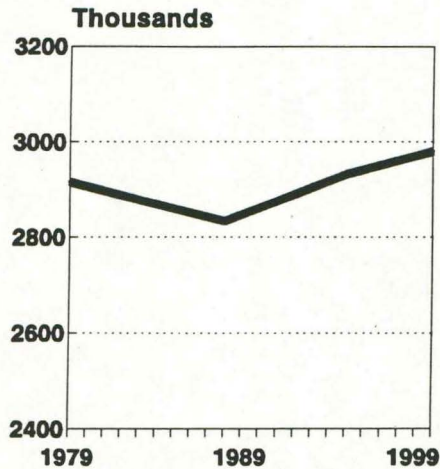
Population

Although the population growth of a state reflects several basic demographic factors such as birth rates and death rates, it has a strong economic component due to the effect of economic opportunity on migration.

Individuals and families often move to seek out improved prospects for employment and income. Iowa has historically experienced net outmigration of persons because its economy did not grow as fast as its labor force. During the early 1980s when the economy contracted, this outmigration became very large. Iowa apparently experienced the second largest percentage population loss of any state as its labor force adjusted to fit the level of available employment.

During the 1990s and beyond, Iowa's population is expected to grow slowly, continuing a turnaround which began during the last several years. Both Woods and Poole and BEA show Iowa's population growing more slowly than the national average, reaching three million about the year 2010 (BEA) or shortly thereafter (Woods and Poole). Both forecasts indicate that Iowa will rank about 30th or 35th in total population, down from 25th in 1970. Recently released estimates from the U.S. Census Bureau suggests that Iowa's population loss during the early 1980's may have been larger than first estimated, so the three million level may actually be reached later than these forecasts would indicate.

Iowa Population Forecast Through 2000



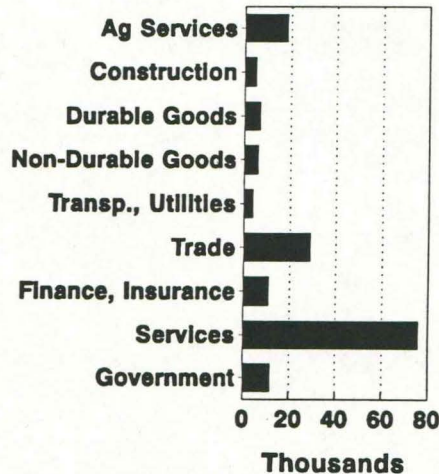
Source: BEA (May 1990)

Population Composition

Like the nation as a whole, Iowa's population is growing older and more racially diverse. The median age in Iowa is expected to continue to climb during the 1990s, reaching almost 40 by the year 2010. Iowa is ranked about 5th in terms of population over age 65 today, but is expected to rank 3rd by the year 2010. The fastest-growing age group in Iowa for the next 20 years will be the group aged 80 and above. The fastest growing cultural groups are expected to be Asians and Hispanics.

The most rapidly growing non-farm sectors are expected to be agricultural services (providing services for those larger farms), finance, business services and personal services. Construction, wholesale and retail trade and government are forecast to grow relatively slowly.

Job Growth By Sector, 1988-2000



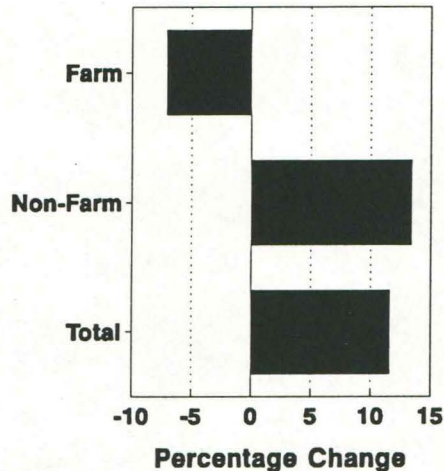
Source: BEA (May 1990)

Employment Composition

Substantial shifts in the composition of employment are expected to occur in Iowa between now and the year 2010. These shifts will mirror national trends to a large extent, for instance the substantial percentage growth of jobs in the services sectors. In some ways, Iowa is expected to be unique. For example, because of its competitive advantage in manufacturing, Iowa is forecast to see continued growth in this sector; this is not expected to occur in the nation as a whole.

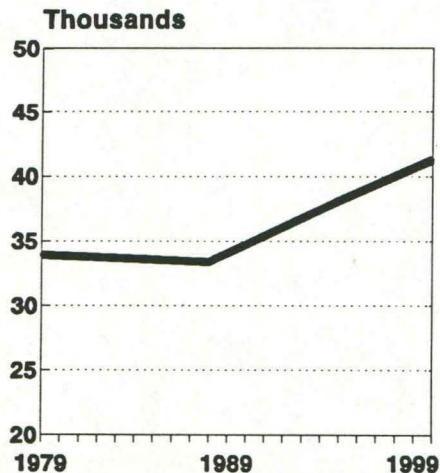
Employment in the Iowa farm sector is expected to continue to contract, reflecting a continuation of the decades-long trend toward fewer and larger farms. By contrast, the non-farm sector is expected to grow steadily.

Employment Growth By Sector, 1988-2000



Source: BEA (May 1990)

Iowa Personal Income Forecast Through 2000



Source: BEA (May 1990)

KEY TRENDS FOR THE 1990S AND BEYOND

In May 1940, the German army invaded Belgium, Holland and France. Although they faced superior numbers of troops and tanks controlled by the Allied forces, the Germans overran all three countries in less than two months. There are many reasons for the Allies' defeat; chief among them was an insistence on the part of their generals on using the same strategies and tactics they used decades earlier to win the First World War. While the Germans employed rapid movement of tanks, surprise attacks by paratroopers and air superiority, the French and British generals relied on fixed defensive positions like the Maginot Line and large, slow moving infantry formations. Everything the Allies did was too late or simply wrong. Yet, they did not change their tactics, which resulted in the occupation of Western Europe.

Of course, the Allies eventually recovered from this initial shock and were victorious. However, this example indicates a problem which can afflict any nation, state, business or organization. That problem is getting caught in a paradigm shift--a situation where the basic rules of the game have changed, but the organization insists on playing the game the same way it always has. A paradigm is a set of rules we have in our minds about how the world works or how things are done.

In the early 1980s, Iowa and the United States as a whole were caught in such a shift when the economy underwent a dramatic transformation. In a very short period of time, the external environment shifted from inflationary to deflationary; the foreign exchange value of the dollar strengthened greatly, making our goods hard to sell overseas; foreign competition in U.S. markets grew quickly; and foreign suppliers began to market superior quality goods.

Iowans, content with prosperity gained in the inflationary 1970s, reacted slowly to changed conditions. The result was an especially severe recession in Iowa--and another excellent example of a paradigm shift. Factories closed or contracted; jobs were lost; farms consolidated; and land values plummeted.

The 1980s were a time of tremendous change, particularly in the economy and in technology. The 1990s and the early part of the 21st Century promise to be even more tumultuous. A large set of forces are in motion which in combination will change the face of Iowa and the world. One best selling book has called these forces "Megatrends", which is an appropriate description. They are large-scale changes which in turn will effect governments, businesses, organizations and individuals in profound ways. Neither private companies nor government can significantly alter most of these trends; however, they can be anticipated, adapted to, coped with or taken advantage of. Not taking them into account and doing "business as usual" is a decision which may be regretted by future generations.

Although futurists generally agree upon these trends and some of these trends are already happening, there is no guarantee that they will all materialize. Foretelling the future is always a hazardous occupation; nonetheless, predictions are useful for making decisions. The following table summarizes some of these "Megatrends" which may produce demographic, international, organizational and other changes.

CRITICAL TRENDS FOR THE 1990S AND BEYOND

<i>FROM:</i>	<i>TO:</i>
<i>Youth-Oriented Society</i>	<i>Middle-Aged Society</i>
<i>Baby Boom</i>	<i>Senior Boom</i>
<i>Rapidly Growing Labor Force</i>	<i>Slow Growing Labor Force</i>
<i>Labor As A Cost</i>	<i>Labor As A Productive Asset</i>
<i>Traditional, Nuclear Families</i>	<i>Diverse Family Types</i>
<i>Mass Markets</i>	<i>Mosaic Society/Niche Markets</i>
<i>National Economy</i>	<i>Global Economy/Borderless World/ Regional Trade Blocs</i>
<i>The Cold War</i>	<i>The Peace Economy/Regional Conflicts</i>
<i>Commodity/Goods-Based</i>	<i>Information/Technology-Based Economy Economy</i>
<i>Quantity/Consumption</i>	<i>Quality/Experience</i>
<i>Lots of Middlemen</i>	<i>Disintermediation: Do It Yourself/ Self Service/Mail Order</i>
<i>Large Hierarchies</i>	<i>Flatter Organizations/Entrepreneurs/ Contracting Out</i>
<i>Clear Roles: Public/Private, Social/Individual</i>	<i>Blurred Roles/Partnerships/ Experimentation</i>
<i>Women In the Workforce</i>	<i>Women in Leadership Roles</i>
<i>"The Me Decade"</i>	<i>Renewed Ethics/Social Activism/ Arts Boom/Heightened Environmental Concern</i>
<i>Chemical Based Agriculture</i>	<i>Biology Based Agriculture</i>
<i>Centralized Processing</i>	<i>Parallel Processing</i>
<i>Computer Hardware Boom</i>	<i>Software/Intellectual Property/ Artificial Intelligence</i>
<i>Separate Telephones/TV</i>	<i>"The Fifth Medium"</i>
<i>Infrastructure Downturn</i>	<i>Infrastructure Investment</i>

Demographic Megatrends

Some "megatrends", especially those involving demographics, are relatively easy to predict and have broad implications. It is a fact that the populations of both the United States and Iowa are getting older. Birth rates have dropped to very low levels while longevity has increased dramatically. The results will be an increasingly middle-aged population with the elderly being the fastest growing demographic group. The most important economic consequences of this trend will be a slow growing labor force and changing markets for consumer goods and services. In the past, abundant labor has tended to support the attitude among some employers that workers are a "necessary evil"; quality workers are now starting to be looked upon as part of the assets of a company or organization. To survive and thrive, companies will need affordable, highly productive labor. The senior boom is starting to transform markets for goods and services and will continue to do so well into the 21st century as the large baby boom generation retires.

Another interesting demographically driven trend is the "mosaic society". Rather than being a "melting pot", the United States, and to a lesser extent Iowa, are becoming homes to a large number of distinct subcultures and lifestyles. This is no doubt helpful in that it exposes us to new ideas and cultures, but it also may lead to conflict. Similarly, there is now really no such thing as a typical American family. All sorts of lifestyles and household living arrangements exist side-by-side.

Economic Megatrends

Demographic "megatrends" in turn have economic consequences in terms of marketing. The evolution of diverse subcultures and lifestyles is fracturing the mass market that characterized the 1950s and 1960s. Nowhere is this more evident than in automobiles, where makes, types and models have proliferated. Consumer choices are expanding tremendously. Consumers will have more power and choice than ever before in the 1990s. Companies are reacting by becoming either large-scale, low-cost marketers or specialized, niche strategists. The middle ground in consumer goods seems to be disappearing as producers seek to differentiate their products. Although manufacturing output is increasing in both Iowa and the U.S., the emphasis on high productivity and quality is leading to increasingly automated operations. For this reason, most employment gains over the next 20 years are expected to be in the services sectors. For example, many employment and income gains will be attributed to the growth in tourism and the visitor industries. The tourism industry has been predicted by many experts to be the number one industry in the world by the year 2000.

The very nature of the economy is also changing from one based on commodities and goods to one based on information and technology. The information content of goods is increasing rapidly, largely due to the advent of microelectronics. A greater information content translates directly into higher value-added products and superior quality products. If the U.S. and Iowa are to remain prosperous, with high wage occupations, they must master the ability to produce high quality goods and services. The intensity of international competition will only increase in the 1990s; this means a continuation of the volatility in the economy that occurred in the eighties. Businesses will continue to start, fail, contract and expand in record numbers.

International Megatrends

Of course the biggest economic and political event of the past year has been the collapse of communism in Eastern Europe and the reform movement in the Soviet Union. Very few people foresaw this trend even five years ago. The thaw in the Cold War is opening up tremendous future opportunities in the former Warsaw Pact nations, although the verdict is still out on how stable this region will be. It is also going to add strength to the emerging European trading bloc--"EC 1992". A reunited Germany looks to be the emerging economic superpower for the 1990s. Also significant has been the growth in the Asian and Latin American markets. Similar trading blocs are emerging around Japan and the United States. The U.S. bloc will probably include both Canada (with a free trade agreement already in place) and Mexico. Caribbean and Latin American nations may follow. In this environment, state and national boundaries are becoming essentially meaningless from an economic standpoint.

The end of the Cold War also means changes in defense policy. The probability of a large scale nuclear war or land war in Europe has been greatly diminished, but a number of regional "hot spots" remain, such as in the Middle East. U.S. defense forces will likely be cut significantly, and their role changed to containing regional conflicts which threaten American interests. The defense build-down is generally expected to be good for Iowa since we have little stake in the defense industry and much to gain from increased trade and stability.

Organizational Megatrends

Some of the most interesting but least noticed trends for the 1990s involve changes in organizations. These alterations are occurring in both the private and public sectors, although those in government organizations are occurring more slowly. Multi-level, hierarchical organizations are becoming flatter and more flexible due to both economic and technological influences. The middle of organizations is disappearing, particularly effecting management; day-to-day decision-making is increasingly being put into the hands of production work teams. A similar trend involves the elimination of middlemen in many consumer transactions; people are increasingly "doing it themselves".

Two other notable trends involve the blurring of traditional organizational lines and the growing leadership role for women in our economy and society. The distinction between public and private is becoming vague with the development of numerous public/private partnerships to address critical issues such as improvement of public school systems. The past several decades have seen the movement of women into the workforce in unprecedented numbers. During the 1990s and beyond, women will be increasingly taking on leadership roles in both the private and public sectors.

Agricultural Trends

Agriculture is and will remain one of Iowa's core economic sectors. About 10.4 percent of Iowa's gross state product came directly from farms. This percentage has been declining over time as Iowa's economy diversifies into manufacturing and services. Perhaps more importantly, a large portion of Iowa's economy is indirectly tied to agriculture. Substantial portions of the non-durable goods manufacturing sector (e.g. food processing), durable goods manufacturing sector (farm machinery), transportation (trucking and railroads) and services sectors (agricultural services) involve meeting demands generated by agriculture.

But in the 1990s and beyond Iowa agriculture will undoubtedly be very different than it has been in the past. The main reason for this is that agricultural markets are changing rapidly and will continue to change rapidly. These changes in many ways mirror trends in the overall economy--greater integration of agriculture into a global system, more consumer-driven marketing and more concern about environmental impacts.

One of the most profound trends affecting agriculture in Iowa is changing global markets. Traditional strong markets for U.S. and Iowa farm products, the domestic market and Western Europe, are now declining growth markets due to slow population increase and shifts in diet away from red meat and toward poultry and fish. (Poultry and fish production use less farm product input to produce a pound of meat than beef or pork). Demand for U.S. exports in Eastern Europe and the Soviet Union will likely decline if and when economic and agricultural reforms are put in place and can work.

The biggest potential for increased sales of farm products from the U.S. and Iowa in the next 20 years will probably be in the Third World, specifically countries like Mexico and Indonesia which are ready to experience significant increases in standard of living and upgrade the diets of their people. Iowa will need to be ready to tap into the markets in these newly industrializing countries and can also benefit by exporting agricultural production know-how to them.

Another very basic agricultural trend will have to do with the drive to process more agricultural goods before sending them out of Iowa or the country. Processing adds value to the products, allowing more wealth to be captured by the processing state or nation. A recent study by the Federal Reserve Bank of Kansas City indicates that value-added processing of food or other farm-derived products is an excellent economic development strategy for Iowa--Iowa is one of seven states in the U.S. with the greatest potential to expand its food processing sector due to its abundance of output and its location relative to markets for food products. Iowa's greatest potential is in processed meat and poultry products and grain mill and bakery products, according to this study.

Other Key Agricultural Trends

Although observers of agriculture disagree on a number of important future trends--especially whether the 1990s will be a time of prosperity or resumed crisis for farming--a number of things seem likely to occur. These are:

- * There will be fewer, larger farm units as global competition forces greater agricultural productivity.
- * There will be increased emphasis on value-added processing of farm products, including alternative fuels and alternative industrial chemicals.
- * Global competition and universal access to advanced farm technology will mean that no nation or region--even those with clear natural competitive advantages like Iowa--will have "a lock" on any market. Agriculture will become much more like other business sectors in this respect.
- * There will be greater and greater applications of knowledge and technology to agriculture, especially in terms of bio-engineering.
- * There will be more concern about the impacts of agriculture on the environment and integrating environmentally-sound practices into agriculture.
- * A continued shift of the rural economy away from its traditional agricultural service base and toward processing, manufacturing and services will occur.
- * Relatively low prices for raw agricultural products will remain due to abundant supply and productive capacity. Some former large importers of farm products--notably India--are now becoming exporters for the first time.
- * The importance of international markets in farming will grow. Exports now account for over one-third of total US farm production.
- * Some form of government intervention in agricultural markets will likely continue, but with a definite trend toward a reduction of farm subsidies. Global negotiations aimed at reducing subsidies and opening up markets for agricultural products are likely to gain in intensity and grow in scope.

Other Megatrends

Sweeping social and technological changes will be occurring in the 1990s as well. The 1980s have been characterized as "The Me Decade", a time when personal financial advancement mattered above all else. Since social activism seems to be cyclical, the 1990s are expected to be a time of rising activism. The health of the environment will almost undoubtedly be at the top of the list of issues on people's agendas. Renewed interest in ethics, religion and the arts is also expected by many futurists.

Some of the most intriguing key trends for the 1990s and beyond are driven by new ideas or models of reality. Non-linear models of reality (such as "chaos theory") are starting to be applied. These provide entirely new perspectives on what is possible in both the physical and social sciences. Similarly, biology-based scientific theories are being applied in areas of physics-based theories (which tend to stress linear thinking). These models may also lead to breakthroughs in knowledge and technology. An example of such a model is parallel processing in computing, which utilizes a network of separate microprocessors and breaks down a problem into pieces to solve it. Supercomputer manufacturers such as Cray Research are investing heavily in this approach.

The 1990s and the early part of the next century are also expected to be a boom period for computer software. Software which recognizes human speech and handwriting is now available; so are programs which greatly speed the development of other software. Programs which "reason" out problems based on logical rules and information which are supplied to them--expert systems--are also being developed in large numbers.

The most sweeping technological development of the next two decades will probably be the development of nationwide fiber optics networks. Fiber optics, which are thin strands of glass that transmit laser-driven light, can handle huge volumes of digital-encoded information at the speed of light. Such networks promise to revolutionize telecommunications, business, education, job training, entertainment, public services and medicine since they will allow for clear transmission of video, audio, pictures, text and data all over the same system. The lines between telephones, fax machines, televisions and computers will be blurred when such a network is in place. This is truly a new medium of communication. The expense required to install such networks will be substantial; however, the potential uses are tremendous. These networks could also make rural communities much more attractive as business locations.

A key trend of the 1970s and 1980s has been a sharp decline in the share of the economy going toward public works infrastructure--roads, airports, ports, bridges, sewers, water systems, public buildings, public housing and the like. Some observers have suggested that this decline has hurt U.S. productivity and that there is an "infrastructure crisis". Although this is debatable, there will likely be a great deal of interest in increasing levels of infrastructure investment over the next several decades.

COMPETITIVE ENVIRONMENT

Having reviewed the efforts of planners in the past, our attention must turn to the competition that Iowa will be facing in the future. Iowans are now operating in a fast paced global environment populated with players of ever increasing sophistication along with our more traditional domestic competitors. As a result, this analysis will break Iowa's competitors into two groups--national and international. It will involve looking at Iowa in the global marketplace where our people, policy, productivity and places are the attributes of the product we want to sell. Not only are we trying to position the state as a possible location for business but we are also improving the product to the fullest extent possible for the satisfaction of our primary customers--The citizens of Iowa.

Continuing with the analogy of Iowa as a product requires we look at the competitive environment from the perspective of one of many products sitting on the grocery store shelf, competing to attract purchasers through a variety of strategies. These range from being the lowest cost item on the shelf, to having the most attractive packaging, to being made of the highest quality components, to being the best price/quality trade-off the manufacturer can achieve. The range of product variations and promotional strategies can be perceived as either limitless or constrained since the same basic product is the core of whatever is put into the marketplace. In our case we are held to selling Iowa, but we are able to vary our product in some subtle ways so that its components are more to the satisfaction of its consumers. Iowa sits on a shelf in a grocery store that is adding new shelf space and products almost daily as other nations and states enter the competition. As a result, in order to satisfactorily compete for the customers' attention and to make sure that a high level of customer satisfaction is maintained, Iowa will have to offer the best product it can.

When looking at the intensity of competition in a market, many models developed by business strategic planners are available. A common thread that runs throughout these explanations of competitive advantage are discussions of competitor strength; one's own strength or market share; the nature of the market and the threat of substitute products. While these models have all been developed with the private sector as the arena, these models also shed light on the environment in which governments work. It is getting more difficult to tell the difference between business and government in many countries, and with privatization initiatives being suggested to government, a business approach to viewing the environment seems increasingly more appropriate. The actions taken by most departments of state government also affect business, whether it be through regulation or the creation of policy intended to influence or foster business development. Partnerships between business and government have been growing over the last decade. Business planning methodologies and strategy formulation models are the logical next step in government's attempt to become more like private enterprise--leaner and customer driven.

One explanation of the forces driving competition, developed by Michael Porter, illuminates Iowa's position in its competitive environment. Porter describes five forces driving industry competition. They are: 1) rivalry among existing firms, 2) the threat of new entrants, 3) bargaining power of suppliers, 4) bargaining power of buyers, and 5) the threat of substitute products or services. These five features provide insight into the intensity of competition in a particular industry which in turn affects industry profitability. For instance, a firm that sells a unique product where there is little interest by others to produce the product (a low degree of rivalry) should capture a majority of the available market resulting in a good profit. However, should this profit become attractive to the other firms in the industry and the cost of entering the market is relatively low then they could enter the market and sell substitute goods and spread out the profit as competition increases. While this analysis is intended to gauge the profit potential of a particular industry, these five forces provide insight into how Iowa can better compete in the global economy.

Rivalry with existing firms and the threats of new entrants and substitute products or services highlight the intensity of the competition that Iowa faces. The other Midwestern states and in many cases all states constitute our rivals and our substitutes. Competition is intense for landing new businesses and retaining existing firms. Differences among the states are, in some cases, perceived rather than real. States that have seen the challenges of the next few decades as well as the emerging nations of the world are the new entrants into the marketplace of which Iowa must be aware. Unfortunately, there are no real barriers entry for a government that wants to fully develop its economy. This makes the competitive environment especially intense. Many are aware that cutthroat behavior exists between the states when competing for business locations. This competition may also extend to assisting with the promotion of the products produced by a state's businesses or improving the quality of the labor force.

In summary, Iowa has to deal with the considerable power of the buyers of its product. When substitutes are easily found, rivalries are intense and new entrants to the market are ever present, the buyer can dictate the terms of sale in many cases. Economic activity and households are more able to locate anytime and anywhere they desire.

This approach to looking at the competitive environment shows that in order to be successful in the future Iowa will need to be aware of its competitors' activities. The State will also need to position itself relative to its competition in a way so as to optimize our own place in the global market. It is also readily apparent that Iowa does not have much control, in some cases, over its own destiny. The power of the competition and the nature of the marketplace make it difficult for Iowa to be seen as a truly unique entity or to be in a position to be selective about its clientele. The job of state government, in this instance, is one of making policy that enhances our strengths, helps overcome critical weaknesses and finds and exploits our own special areas of competitive advantage. In essence, the State must make every effort to insure that Iowa will continue to be--and be seen as--a good buy.

ECONOMIC DEVELOPMENT POLICY OPTIONS

Although state and local governments have long been involved in promoting economic development, a surge in activity may be traced to the mid-1970s. At that time, the long postwar boom in the U.S. economy began to wane. Several factors, including falling productivity, rising inflation, energy price increases and much more aggressive foreign competition, have contributed to a slowdown in industrial growth. States in the Northeast and Great Lakes area were hit with severe regional recessions, high levels of unemployment and outmigration of population.

The basic approach to economic development policy in these regions, although somewhat different from state to state, was to define economic development as the retention or creation of jobs. The basic tools of economic development in the 1970s and 1980s were distinctly "supply-side" ones--the idea being to provide business climate improvements, cost reductions and other incentives so that the state would become a relatively more attractive location for business.

Making the state a more attractive location, particularly by lowering the cost of doing business, should in turn lead to increased private investment, new jobs, lower unemployment and higher personal income. These supply-side measures had been pioneered by the Southeastern states prior to 1960 and appear to have been successful in luring businesses from the Northeast and Midwest. Mississippi, which had been almost totally dependent upon cotton in the 1920s, was one of the most aggressive followers of the supply-side approach to economic development.

During the 1980s, these supply-side policies became more sophisticated and targeted as general economic conditions improved in the Northeast and Midwest. Incentives were often geographically targeted to encourage greater private investment in large, deteriorating urban centers or lagging rural areas. Examples of such geographically targeted incentives include targeted tax abatements, tax increment financing districts and enterprise zones, which were adopted in over half the states during the early eighties. In the mid-1980s, a different approach to economic development also began to evolve--one based on a "demand-side" rationale. The major reason for this new approach seems to have been a questioning of the long-term effectiveness of the supply-side approach.

Although supply-side approaches have been demonstrated to have a positive effect on business location decisions, if all competitors adopt them, the effects become more and more diluted. The supply-side approach is, in many respects, a defensive strategy which must be followed to stay in the game with other competitors. Supply-side policies also seem to be much more effective in influencing some business decisions than others. Specifically, branch plant location decisions of mature firms appear to be much more dependent on costs of doing business than are the start-up decisions of entrepreneurs. Supply-side approaches have also, in a few cases, developed into bidding wars among several states for large manufacturing plants. The most notable of these was the contest for the GM Saturn automobile plant, which was ultimately landed by Tennessee partly through its offer of tens of millions of dollars of incentives. In several cases, the question, of whether the economic benefits of the new plant being bid for outweighed the costs of the incentives, has been raised.

Demand-side policies are based on the notion that government can intervene to help generate unique and additional economic opportunities for a state or locality. Demand-side approaches usually concentrate on building up indigenous economic activity as opposed to bringing in firms and plants from the outside. Small and medium-sized firms, which are thought to now contribute most of the new jobs in the U.S. economy, are generally the targets of such programs. Often, the goal of demand-side policies has been restated from the creation of jobs to the creation of new wealth. Jobs then follow from the creation of new wealth. This in turn raises the standard of living in the state.

Most often, demand-side policies concentrate on assisting entrepreneurs and rapidly growing companies through the provision of venture and growth capital and technical assistance appropriate to a specific stage in the business life cycle. Michigan has been the leading state in designing programs to fit the typical business life cycle. Although seed and venture capital funds are the best-known forms of demand-side policies, export trade assistance and modernization assistance for mature companies are also policies which various states and localities have tried.

One key difference between supply-side and demand-side policies is that demand-side policies require institutions which are more flexible and entrepreneurial. Sometimes this is difficult to accomplish within a state government setting. For this reason, some states have decided to operate as "wholesalers" rather than "retailers", decentralizing their programs and underwriting the development of local or quasi-public institutions to make funding decisions. A good example of this approach in Iowa is the new Business Development Finance Corporation, which uses a private staff to administer a program and leverages money.

As the following tables illustrate, Iowa has adopted a range of both supply- and demand-side economic development policies. Iowa's strategies and programs have developed in a logical sequence--first supply-side, jobs-oriented policies to deal with the severe unemployment problem of the early 1980s, then demand-side policies more recently. Iowa has, in fact, been very aggressive in adopting demand-side policies lately, as indicated by its "A" grade for economic development policy in the most recent Corporation for Economic Development "Report Card of the States".

One interesting observation which may be drawn from the tables is that Iowa has generally not chosen to adopt geographically-targeted, supply-side programs. For instance, Iowa has not yet chosen to enact an enterprise zone program and its urban revitalization and tax increment financing provisions are available to many localities. This might be expected to change since there are now some geographic areas of Iowa, both rural and urban, which have not yet recovered from the recession of the early 1980s and are lagging behind other, more successful areas. Targeting some programs into distressed areas may become more prevalent in Iowa in the 1990s.

Iowa has also generally not adopted "protective" economic development policies, which are designed to slow down the negative side of a dynamic state economy--"creative destruction" involving the contraction or death of firms. Policies such as state plant closure laws and suits for breach of economic development deals have tended to be adopted sparingly by states and localities to date since they are almost inevitably interpreted by business as evidence of a "poor business climate". Iowa and many other states have instead chosen to put in place transition assistance programs to aid displaced workers. Several trends have become apparent in economic development policies as the decade of the 1990s begins. The most obvious of these is a growing concern for the international competitiveness of the United States. Although competitiveness means different things to different people, common concerns usually included in such discussions are the need to improve public education systems to world-class standards, investing in human capital, stimulating entrepreneurial activities, investing in infrastructure, encouraging savings and investment, encouraging research and development activities to build the "knowledge base" for development, and increasing investments in public works infrastructure and amenities. The common denominator underlying the idea of competitiveness is that by making key, critical investments, government can help the firms to become more productive and thus more globally competitive. Many observers feel that because of unprecedented slow growth in the national labor force, the 1990s will see growing stress on education and human capital issues such as retraining and skills in economic development.

In effect, competitiveness-oriented policies are simply supply-side economic development policies pursued on a grand, global scale. Instead of being concerned about competing with other states, states are now concerned with competing with other nations. This, of course, is perfectly reasonable in an economy where state and national boundaries are coming to have less and less meaning.

Other trends in economic development policy include a move toward more emphasis on demand-side, entrepreneurial activities, as noted above. States and localities mainly pursue supply-side policies to protect what they have got (in business terms, their market share). Such activities are now probably about as extensive as they can be, given limited state and local budgets. On the other hand, demand-side policies are "offensive" and are intended to generate new opportunities and new wealth; they may pay for themselves or even generate a profit in some cases.

Supply-side activities are not likely to diminish unless states agree among themselves to refrain from offering tax breaks or other incentives in competition with each other. (The situation is analogous to an arms race, where one nation must keep pace with another or risks being in an inferior position). At present, such agreements have only been suggested. Putting them in place has proven difficult.

Most states (although not all) have tended to adopt a mixture of supply-side and demand-side measures to promote economic development. The choice of the appropriate mixture depends largely on the basic economic and social characteristics of the state. (Is the state an "entrepreneurial state" or a "branch plant state" or something in-between?) It also depends on the sort of economic growth the state would like to encourage and the mixture adopted by the state's competitors. Iowa and most of its competitor states have adopted a "mixed" economic development strategy--part supply-side and part demand-side.

It is interesting to note the diversity of approaches to economic development which have been adopted by the states surrounding Iowa. Minnesota has adopted fewer supply-side measures than the other states and in fact is well-known for having relatively high taxes and high-quality public services; it has been quite aggressive in terms of demand-side policies. At the other extreme is South Dakota, which has developed a strategy almost entirely based on low taxes. Nebraska also relies heavily on supply-side policies, particularly general tax abatements. Missouri, Illinois and Wisconsin are, like Iowa, somewhere in the middle of the spectrum. Missouri tends to stress supply-side more in its mix while Wisconsin stresses demand-side. Iowa appears to be about in the center of this policy spectrum, but most of its newest initiatives have been demand-side programs.

What will the next wave of state economic policy be? Some observers expect that the key concept will be "wholesaling". Under this approach, state government seeds quasi-private or local entities to stimulate economic development rather than operating programs directly. (Operating programs directly is called "retailing"). The advantages of this approach include gaining greater leverage from limited state resources, customization of programs to meet unique local needs, and a decentralized structure where customers are better served. At least in theory, this approach promises to make more of a difference in economic development than past approaches but its design is still experimental.

GENERAL SUPPLY-SIDE ECONOMIC DEVELOPMENT POLICIES

General Tax Policy (Corporate, Individual, Sales, Property) *
Tax Exemptions Or Abatements *
Tax Credits Use Of State Products As Inputs
Accelerated Depreciation For New Equipment
Tax Incentives For Job Creation *
Tax Incentives for Investment Or Research and Development *
Publicly-Sponsored Tax-Exempt Debt Financing (Loan Guarantees,
Industrial Revenue Bonds) *
Direct Loans And Grants To Firms *
Industrial Building Programs *
Community Development Programs *
Regional, Community Or Site Infrastructure Programs *
Right-To-Work Laws *
Customized Job-Training Programs *
Policies Regarding Unemployment Compensation and Disability
Insurance *
Utility Rate Regulatory Reform *
Minimum Wage Laws *
Professional And Business Licensing Requirements
Corporate Securities Issuance Laws and Regulation
Banking Regulations and Practices *
Environmental Regulations *
Marketing And Advertising *

GEOGRAPHICALLY-TARGETED SUPPLY-SIDE POLICIES

Targeted Site Development Programs (e.g. Industrial Park Authority)
Financial Assistance To Firms In Distressed Areas
Tax Abatements Or Incentives For Investments In Distressed Areas *
Tax-Increment Financing *
Enterprise Zones
Consolidated Government Service Centers/"Growth Centers"

* Iowa Has Enacted Or Made A Significant Change Since 1980

DEMAND-SIDE POLICIES

Research And Development Funds *
Technology Development And Transfer Programs *
State Venture Capital Programs *
Seed Capital/Product Development Pools *
Public Pension Fund Venture Pools *
Small Business Management Assistance *
Targeted Small Business Programs *
Business Incubator Programs *
Business Modernization/Automation Programs *
Export Finance And Assistance Programs *
Trade Lead And Purchaser Matching Programs *

TRANSITION ASSISTANCE/PROTECTIVE POLICIES

Plant Closure Transition Assistance *
Job Retraining Programs *
State Plant Closure Laws
Eminent Domain For Plant Shutdowns

* Iowa Has Enacted Or Made A Major Change Since 1980

STRATEGIES FOR THE NEXT TWENTY YEARS

Developing a set of strategies to position Iowa for prosperity during the next twenty years is difficult--after all, twenty years is a long period of time these days. Twenty years ago, the Vietnam war was still in progress, the first Earth Day was celebrated, the U.S. had just landed on the moon, the personal computer had yet to be invented and no one knew what an energy crisis was. Competitors can grow strong or weak in a period of twenty years; it took about that much time for Japan to move from a maker of poor quality goods to the maker of the best quality goods in the world. (It is not hard at all to remember a time when "Made in Japan" was stamped on cheap toys.)

Even so, there are a set of large scale strategies that Iowa may follow that, given prevailing trends and competitor behavior, are either necessary or will allow Iowa to position itself both ahead of its competition and out of the mainstream. These "Megastrategies" complement or encompass those contained in the 1989 Five Year Strategic Plan Update and the Iowa Future Project's Six Point Plan for a Quality Economy. Each is discussed in turn below.

1. Become a World Leader in Human Capital and Education

The two areas besides agriculture where Iowa clearly has the ability to become recognized as a world leader are human capital and education. Iowa leads the U.S. in education and perhaps in training and retraining. But it now needs to intensify its efforts. This will be both difficult and costly to accomplish and may require considerable changes in the current educational system. Science and technology education should be particular areas of concern. Education and lifelong learning will, due to rapidly changing knowledge and skills requirements, become an economic development opportunity as well as a competitive requirement.

2. Build an Agricultural Economy Based on Adding Value

At the present time, Iowa exports a considerable volume of unfinished goods, particularly agricultural commodities. The greatest economic opportunities Iowa has ahead involve further processing of these goods via traditional or biotechnological means before they leave the state, thus gaining additional income, jobs and diversity. Another great opportunity involves reducing the need for energy imports coming into Iowa through efficiency measures and substitution.

3. **Build a Strong Presence Internationally**

In a world without borders, trying to keep the world out or not venturing out into the world is not only futile, but it may eventually amount to economic suicide. Iowa should strive to be an active participant in the global economy and global affairs. To do this will require some cultural change. Iowans are not as aware of other nations' languages, cultures and economies as they need to be. The same may be said for different cultures within Iowa. Iowans also tend to be too apologetic about Iowa.

4. **Utilize Technology More Effectively to Compete**

Iowa has a wonderful opportunity to be one of the leaders in the application of new telecommunications technology to a rural economy. The coming of "the Fifth Medium", which will deliver digital audio, video, text and data into homes and businesses via fiber optics will undoubtedly be one of the major technological advances of the early 21st century. Iowa must have the systems and regulatory environment in place to capitalize on this revolution. Another "must" in this category is to more effectively transfer technology from the laboratory into the marketplace to help Iowa's firms produce better quality goods and services, to become more productive and to compete more effectively around the globe.

New telecommunications technology will also allow private and public services of all sorts to be delivered in totally new ways to the benefit of customers. Iowans must have a good understanding of technologies--what they can and cannot do and their possible drawbacks.

5. **Re-Invent Government Institutions**

Most of the government institutions now operating in Iowa were appropriate for the time they were invented but are visibly inadequate today. Some of our institutions are a century old, but have never really been re-examined. In tomorrow's economy, they will become costly barriers to success if not changed. Government needs to become considerably more responsive to its customers, more results-oriented, more decentralized, "bottom-up", choice-oriented and competitive.

However, this is not to say that government's roles in the economy will not be critical. Government will need to listen and work better with the private sector in the years ahead. A permanent public/private "Iowa Progress Foundation" may be one way to open up the channels of communication and accomplish great things.

6. **Effectively Deal With An Aging Population**

Iowa is going to ride the "Age Wave" before many other states and nations. This gives Iowa an opportunity to become a leader in the provision of goods and services for older persons. It also presents Iowa with an opportunity to be a leader in terms of employing older workers and in developing new sorts of retirement arrangements.

An older population will probably strain Iowa's health care system, but it will also present Iowa with a potential growth industry similar to the education and training industry.

7. **Build a New Rural Economy That Provides Economic Opportunities**

Iowa's rural communities have undergone tremendous stress because the economic rules of the game have changed dramatically. The old rules are not going to come back. Many of Iowa's rural communities need to develop new economic roles for themselves, whether that involves tourism, industrial development or being a great residential community. To do this requires new thinking, leadership, careful planning and working together with surrounding communities.

8. **Improve Iowa's Capacity for Enterprise Development**

Research suggests that Iowa lags behind most of its competitor states in terms of its ability to generate home grown, export-oriented firms with high rates of growth. The causes for this appear to be mainly "cultural"--Iowa lacks people and support networks with the management skills and resources necessary to turn ideas into thriving businesses, at least in any great numbers. Changing this culture will be a long-term undertaking. Iowa must also continue to take advantage of its expanding tourism industry.

9. **Stress Quality of Life and Environmental Quality**

As businesses and households become ever more mobile and free of traditional location constraints, quality of life factors become more important. Efforts to recruit "high-tech" businesses to Iowa have indicated how important culture, recreation and other amenities can be in the decisions of scientific and technical personnel to relocate. Although Iowa lacks some of the natural amenities that some of its competitors have, it does have a lack of strong "negatives". Although environmental protection does have costs, Iowa is in an excellent position to turn its leadership in this area into an advantage economically. For instance, Iowa could strive to become a leader in recycling and solid waste management.

10. **Adopt An Appropriate Mix of Pro-Active Development Programs**

As Iowa enters the next decade and century, it must have an appropriate mix of economic development policies and programs in place. This should include "supply side" programs which stress investments in human capital, communities, infrastructure and business modernization as well as "demand side" programs which promote unique, new opportunities for Iowa. Programs should be constructed on a "wholesale" basis rather than provided directly whenever possible. Any programs offered must be customer driven, flexible, capable of being delivered on a timely basis and based on a well-reasoned strategy. All programs should also be evaluated on a regular basis.

END STATES

If we are to fulfill the promise of the next twenty years we cannot continue to merely sit back and point out the problems and opportunities ahead of us. As was pointed out in an earlier section of this plan, our predecessors have also been adept at scanning the horizon and spotting many of the challenges of the future. We can choose to differentiate this effort from those of the past by actually implementing the strategies that have been identified here. These ten strategies can be, if addressed and acted upon, the means by which we can create our own future. By following up on these initiatives and working towards their resolution, Iowans have the potential to decide where they want to be rather than react from crisis to crisis.

If we choose to be sincere about our stated desires, and do work on the initiatives identified here, Iowa will:

- * be a world leader in human capital and education.
- * have an agricultural economy based on adding value.
- * have a strong presence internationally.
- * use technology effectively to its competitive advantage.
- * have re-invented its government institutions to better serve its customers.
- * be attentive to its aging population.
- * have a new rural economy.
- * have an improved capacity for enterprise development.
- * continue to benefit from a high quality of life and environment.
- * maintain an appropriate mix of pro-active development programs.

It is within our control to choose many different destinies. We can make Iowa a place where our goals and traditional values succeed in a twenty-first century economy.

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United States Department of the Interior

GEOLOGICAL SURVEY

Water Resources Division
Federal Building
400 South Clinton, Room 269
Iowa City, Iowa 52240



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JUN 30 1994

IDALS-DSC

June 28, 1994

James Gulliford
Division of Soil Conservation
Iowa Dept of Agriculture and Land Stewardship
Wallace State Office Building
Des Moines, Ia 50319

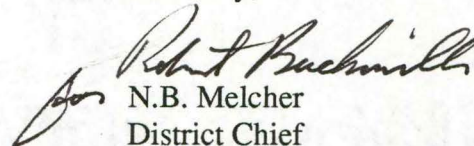
Dear Mr. Gulliford,

Enclosed is your copy of the report "Hydrologic Data or the Big Spring Basin, Clayton County, Iowa, Water Year 1991" by S.J. Kalkhoff and R.L. Kuzniar. Collection of data and preparation of this report was supported, in part, by the Iowa Department of Natural Resources, Geological Survey Bureau through the Big Spring Demonstration Project with funds provided from the Iowa Groundwater Protection Act.

The report documents the hydrologic and water-quality data collected in the Big Spring basin by the U.S. Geological Survey used to provide information on variation and movement of agricultural chemicals in the hydrologic cycle. Data are included for precipitation, surface water and ground water collected during the period October, 1990 to September 1991.

If you have any questions regarding this report, please contact the authors at your convenience [phone (319) 337-4191].

Sincerely,


N.B. Melcher
District Chief

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Iowa Department of Economic Development
200 E. Grand Avenue
Des Moines, Iowa 50309
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