

ADMINISTRATIVE MEMORANDUM

SUBJECT Governor's Commission on the Future of
North Carolina

NUMBER 154
DATE 6/19/81

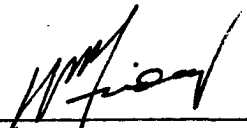
Governor James B. Hunt, Jr. on June 1, 1981 issued Executive Order No. 66 establishing the Commission on the Future of North Carolina to carry out a futures program to be known as North Carolina 2000. The composition and responsibilities of the Commission are fully spelled out in Executive Order No. 66. A copy of the order is enclosed.

This undertaking represents a major new initiative by Governor Hunt that is of great importance to the future of The University of North Carolina and our State. The Board of Governors asks that we become actively involved in this project.

The Division of Policy Development of the North Carolina Department of Administration has prepared Workbook: Preparing North Carolina for the Year 2000 and an instruction sheet entitled "How to Use the Workbook." Copies of both of these items are also enclosed.

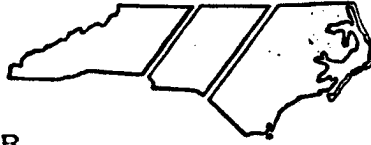
Please review the enclosed materials and prepare a response on behalf of your institution in accordance with the outline in the instruction sheet. Your particular attention is invited to the material on "Education and Skill Training" on pages 8 and 9 of the Workbook. Other issues should also be treated as appropriate.

Your replies are essential for the development of a comprehensive response by the Board of Governors on behalf of The University. In order to meet the Time Table which has been established by the Governor, your response must be received by this office on or before July 22.



William Friday

State of North Carolina



JAMES B. HUNT, JR.
GOVERNOR

EXECUTIVE ORDER NO. 66

COMMISSION ON THE FUTURE OF NORTH CAROLINA

WHEREAS, the people of North Carolina desire the best possible future for their children, their communities and their state; and

WHEREAS, North Carolina is expected to undergo rapid and dramatic changes by the year 2000; and

WHEREAS, these changes will present important and difficult new choices for the future; and

WHEREAS, the people of North Carolina have the right to understand the choices available and the responsibility to participate in making those choices;

NOW, THEREFORE, IT IS HEREBY ORDERED THAT:

Section 1. I hereby establish the Commission on the Future of North Carolina. The Commission shall be composed of:

- (1) members of the State Goals and Policy Board,
- (2) five members each from the Senate and House of Representatives of the North Carolina General Assembly, and
- (3) citizens at-large.

In addition, the President of the Senate and the Speaker of the House of Representatives shall serve as ex officio members. Members shall be appointed by and serve at the pleasure of the Governor. The chairman shall be appointed by and serve at the pleasure of the Governor.

Section 2. The Commission shall meet at the call of the Chairman.

Section 3. The members of the Commission shall serve without compensation, but shall receive such necessary travel and subsistence expenses as are authorized by N.C.G.S. 138-5. Funds for these expenses shall be provided by the Department of Administration.

Section 4. Duties and Responsibilities of the Commission. The duties and responsibilities of the Commission on the Future of North Carolina are as follows:

- (1) to carry out a futures program to be known as North Carolina 2000;
- (2) to build an awareness of and concern for North Carolina's future among citizens of this state;
- (3) to identify the future opportunities and constraints which may affect the quality of life for North Carolinians by the year 2000;
- (4) to develop alternatives for achieving the best possible future for North Carolina;
- (5) to offer citizens the opportunity to voice their views, suggestions, and ideas on future alternatives; and
- (6) to prepare and present recommendations to the Governor and General Assembly for public and private actions which would enhance North Carolina's future.

Section 5. The Department of Administration shall provide staff and services for the Commission.

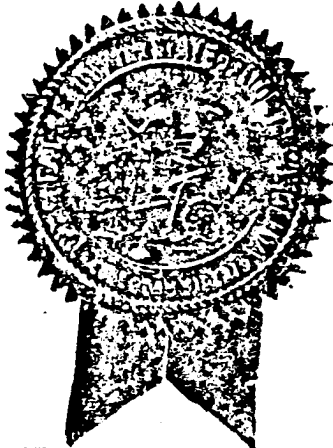
Section 6. Each Cabinet Department Secretary shall cooperate with the Commission to carry out the provisions of this Order.

Section 7. The elected heads of the Council of State Departments are encouraged and invited to join in the provisions of this Order. All services of the Commission available to the Governor and his Cabinet under this Order shall be available to each of the heads of the Council of State Departments electing to participate.

Section 8. It shall be the responsibility of state boards, commissions, and other similar bodies established under North Carolina's laws to assist the Commission in carrying out the provisions of this Order.

Section 9. This Order shall be effective immediately.

Done in the Capital City of Raleigh, this the first day of June, 1981.



A handwritten signature in dark ink, reading "James B. Hunt, Jr.", written over a horizontal line.

JAMES B. HUNT, JR.
GOVERNOR OF NORTH CAROLINA

HOW TO USE THE WORKBOOK

Governor Hunt has requested that you, as a member of a state board or commission, help develop a basic set of information about the issues which will shape North Carolina's future. This workbook was prepared to assist you in undertaking this task.

The workbook is a first step in looking at the future. Your help is essential to fill in the gaps and refine this material for later use by North Carolina's citizens. The workbook covers some of the issues considered crucial to the state's future. For the purposes of presentation and discussion, the issues have been grouped into eight themes. Issues are discussed in terms of three kinds of statements:

BACKGROUND	—	current data or past trends
PROJECTIONS	—	predictions
IMPLICATIONS	—	potential future problems or opportunities

Your board or commission has been asked to complete the following four steps in responding to the Governor's request:

STEP 1. ADD TO THE LIST OF ISSUES

After reviewing this workbook, you may feel that important issues have been omitted. If so, you should identify issues which should be added.

STEP 2. CHOOSE THE ISSUES ON WHICH YOU WISH TO COMMENT

Each board and commission is encouraged to choose as many issues as they wish to review. It is requested that you address in Steps 3 and 4 at least those issues which relate directly to your group's area of concern and expertise. If you added issues in Step 1, these should also be addressed.

STEP 3. REVISE, CORRECT, AND ADD TO WORKBOOK INFORMATION

For issues chosen in Step 2, please revise or correct any statements contained in the workbook to improve accuracy.

For each issue, add statements needed to ensure completeness. If you add statements indicating potential problems or opportunities, provide supporting background and projection information.

For the issues you added in Step 1, provide statements indicating potential problems and opportunities and support these statements with appropriate background and projection information.

STEP 4. MAKE PRELIMINARY RECOMMENDATIONS FOR ACTION

The desired outcome of the North Carolina 2000 effort is the identification of actions that citizens, business, and government might take to improve North Carolina's future. Your recommendations regarding possible actions are needed.

For each issue on which you have chosen to comment, please make recommendations regarding actions that might be taken to improve North Carolina's future.

Comment on the possible negative consequences of the actions you have recommended.

WORKBOOK

PREPARING NORTH CAROLINA FOR THE YEAR 2000

JUNE, 1981

This workbook was prepared for use by state boards, commissions and other advisory bodies in discussing choices for North Carolina's future. It was presented to the chairmen of these groups at a meeting in Raleigh called by Governor Jim Hunt on June 1, 1981. For further information call:

Billy Ray Hall
919 / 733-4131
Division of Policy Development
North Carolina Department of Administration
Raleigh, North Carolina 27611

ABOUT NORTH CAROLINA 2000 . . .

Recognizing that North Carolina's future will depend largely on the choices that we make today, Governor Jim Hunt and the State Goals and Policy Board are leading an effort to:

- create among North Carolinians an awareness of and concern for our future;
- involve the greatest number of persons in making choices that will shape the state's future; and
- provide an opportunity for business and government leaders and citizens to respond to these choices.

The effort, called **North Carolina 2000**, is expected to cover a period from 18 to 24 months.

Two important steps already have been taken. First, Governor Hunt has established by executive order the Commission on the Future of North Carolina to oversee NC 2000. The commission will consist of North Carolinians with a broad range of interests and views, including the members of the State Goals and Policy Board, members of the General Assembly and additional state leaders.

Second, on June 1, 1981, Governor Hunt called on chairmen of state boards, commissions and other advisory bodies to lead their groups in identifying issues most critical to North Carolina's long-term future. Governor Hunt asked the groups to report their findings to him by August 31, 1981. These findings will become the basis for local meetings during the fall.

ABOUT THE WORKBOOK . . .

This workbook has been prepared for state boards and commissions, to stimulate their thinking about North Carolina's future. It contains a discussion of eight themes:

- people in transition
- basic human needs
- the economy
- resource constraints and environment
- food and fiber
- the impact of technology
- transportation
- citizens/government

Each theme is presented with a statement of its overall significance. Major issues under each theme are discussed in terms of identifiable trends and implications for the year 2000. Included is a guide sheet for use in responding to the Governor's request.

The information presented is based on concerns expressed by the State Goals and Policy Board in early discussions about the future. These concerns have been developed further by the Policy Development staff of the North Carolina Department of Administration. In order to present a picture of what North Carolina may be like in the future, current trends have been projected to the year 2000. Every attempt has been made to develop a clear set of projections from available data.

It should be stressed that this workbook takes only a beginning look at our future. As the groups respond to this information, they will no doubt add important issues and delete less important ones; question certain trends and implications; and offer new directions. This is our hope. If this document raises important questions and stimulates dialogue about the future, then it will have served its purpose well.

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INTRODUCTION

OUR FUTURE IS BEGINNING NOW

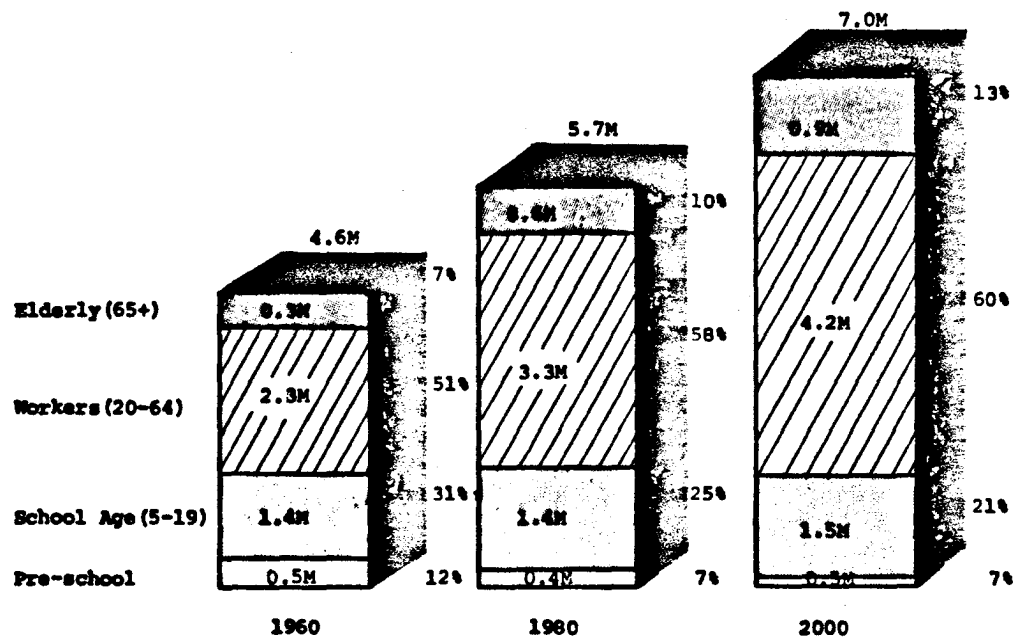
The future always will contain mystery, whether we are looking ahead five years or twenty-five. Yet, we do have some important clues as to what North Carolina may be like by the year 2000. These clues are found in current trends that are expected to continue into the future.

Especially significant are those trends which tell us about the people who will be here in 2000, where these people will live and how they will live.

First we know that North Carolina is a growing state:

- Between 1980 and 2000, North Carolina is expected to add 1.3 million persons, reaching a population total of 7 million. This will be an increase of 23%.
- Population growth will be due largely to people entering from outside the state. In fact, between 1980 and 2000, 61% of our entire growth will be due to in-migration, with that percentage increasing during the later years.
- From 1980 to 2000, much of the population growth will occur in and around cities and towns under 50,000 persons. At the same time, the share of the state's population in and around cities over 50,000 will decline slightly. Population will remain dispersed across the state, with the east and west expanding at about the same rate as the Piedmont.

Composition of North Carolina Population by Age Group



We also know that North Carolina is a changing state:

- The population is aging. Between 1980 and 2000, the number of children is expected to remain about the same, but the working-age and elderly populations are expected to increase. The number of elderly citizens is expected to rise from 600,000 in 1980 to 900,000 in 2000, an increase of 50%.
- Households will be increasing faster than the population. Between 1980 and 2000, the number of households will grow by 60%, nearly three times as fast as the population. Nearly all of the increase in households will occur in two categories: single persons or households with a female head. The number of two parent households will remain at about the same level as today.

These trends are significant in shaping our future. Other trends also will affect us in the year 2000:

- North Carolina's economy will continue to grow, although at a somewhat slower rate.
- Demands will increase on our already limited natural resource base, especially water, land and energy.
- Technology will open up a new information era, an explosion which will affect virtually everything we do.

THE FUTURE IS FOR THOSE WHO PREPARE FOR IT

It must be remembered that trends do not necessarily dictate what the future must be. Rather, they show what the future is likely to be. Their value is in pointing out constraints that we may be working under and opportunities waiting to be seized. Most important, they help us to raise the right questions. For example:

- It is clear that the elderly population will increase dramatically by 2000. What will this mean for people in poverty? for health care and housing needs? for crime against the elderly? Are there possible implications relating to the tax structure?
- Households are expected to grow by 60%. Will we be able to meet the demand for more housing units? Will rising costs create a demand for different kinds of housing units? Will the changing make-up of households lead to a need for new services and commodities?

The trends discussed in the following pages are presented to help us begin to "raise the right questions" about North Carolina's future. Clearly we will be facing some hard choices. There will be hundreds of issues, all of which will be linked in some way to one another. As we consider these issues, it may be necessary to take a new look at our values and to consider what happens if we choose one course over the other.

Making choices will not be easy. But because there are choices, we can play a role in shaping the future of North Carolina.

PEOPLE IN TRANSITION

As a people, North Carolinians are changing in some important ways that will affect both the future needs and resources of the state.

An increasing proportion of the state's population growth will be due to people moving into North Carolina from outside the state. The characteristics, lifestyles, values and expectations of this group will play a part in shaping North Carolina's future.

As a people, North Carolinians are becoming older. The number of persons over age 65 will approach 1 million by the year 2000 — and will make up 13% of the state's population. This elderly group will have special needs which must be met.

Changes in family structure will affect the economic and social well-being of North Carolinians. We will have:

- More female-headed families which are more likely to be poor than other families.
- More non-family households and smaller families whose members may need alternative sources of social support.
- More women (including wives/mothers) entering the workforce with a need for work arrangements that allow for balancing work and family responsibilities.

For some North Carolinians, certain changes are not coming fast enough.

- Despite some improvements, basic inequalities still affect the lives of North Carolina's Blacks and Indians. Trends indicate that this situation will not improve without intervention.
- We have a growing population of migrant farmworkers—many of them Spanish-speaking immigrants—with special needs.

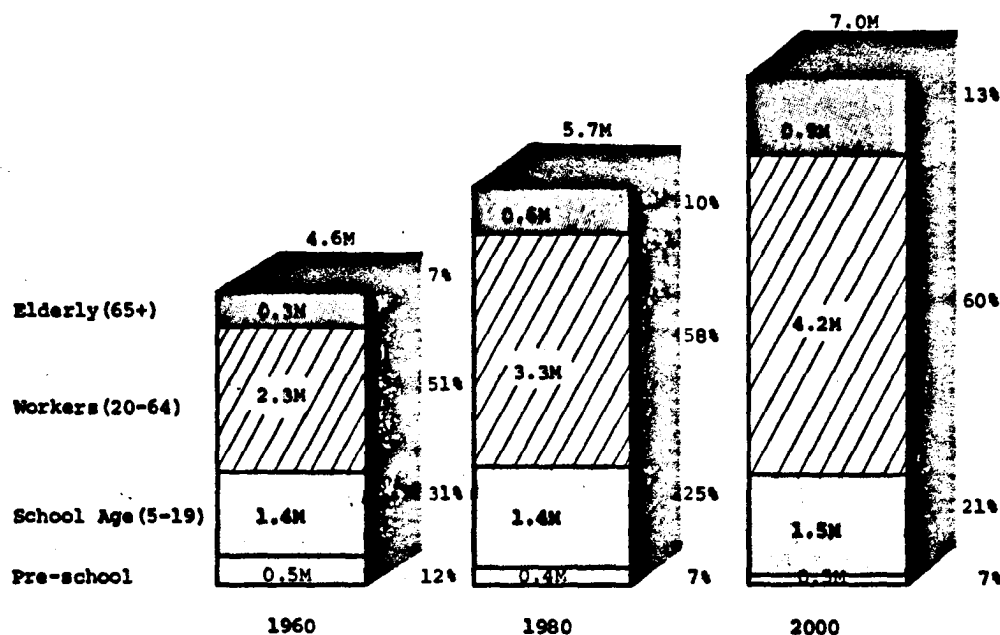
Specific issues are treated below in five sections: Senior Citizens, Minorities, Women Workers, Changes in Family Structure, and Migration.

SENIOR CITIZENS

Between 1960 and 1980, the elderly population increased from 300,000 to 600,000—an increase of 100%.

Projection	<p>Between 1980 and 2000, the elderly population will increase by another 300,000, rising from 7% to 13% of the population.</p> <p>Continued in-migration of retirees from the North may increase this population even more.</p>
Implication	<p>The growing elderly group will require special services. The elderly have special health and housing needs and a particular vulnerability to poverty and crime.</p> <p>This group may also affect North Carolina's tax base and resulting ability to pay for services. Age group conflicts over what to fund may develop.</p>

Composition of North Carolina Population by Age Group



MINORITIES

The income gap between black and white males in the South has increased since 1950. A black family's income is currently 62% of a white family's income.

The morbidity and mortality statistics for Blacks and Indians are poorer than for any other group of North Carolinians.

Black males are five times as likely to go to prison as white males. In December, 1980, there were 8258 black and 6806 white inmates in North Carolina prisons.

Implication These trends indicate that certain basic inequalities still must be addressed.

In the South, black farmers are losing in excess of 333,000 acres of land per year.

Projection If this trend continues, there will be no black-owned farms by the year 2000.

The population of migrant farmworkers is increasing.

Implication This group traditionally is characterized by social and health problems that are not dealt with adequately by local services. They may constitute a growing population in need of help.

WOMEN WORKERS

North Carolina has one of the highest female labor force participation rates in the nation. In 1978, 55% of all women 16 and older were in the labor force, compared with 37% in 1960 and 46% in 1970.

Over half of all wives and mothers in the state are in the labor force.

Implication As women continue to work outside the home in increasing numbers, there will be a greater demand for child care and alternative work schedules to allow for family responsibilities.

Eighty percent of North Carolina working women are now in the low-paying sectors of the labor force—clerical, service, sales, and factory jobs—compared with 45% of men. Only 3% of women are now working in managerial positions and 2% in skilled craft jobs—compared with 11% and 23% for men.

Most women work because of economic need, yet they earn substantially less than men. Nationally, the wage gap between male and female workers has increased in the last 25 years. In 1955, women earned 64 cents for every \$1.00 earned by a man—compared with 60 cents for each \$1.00 in 1978.

Implications The impact of potential reductions in the demand for labor will likely affect women disproportionately because they are concentrated in lower-skill, low-paying jobs which are more likely to be automated. Substantial changes in attitude and training will be required to move women into truly equal participation in the labor force. As the numbers of single females and female-headed families increase, the wage gap between males and females will have a direct impact on the standard of living of these groups.

CHANGES IN FAMILY STRUCTURE

In 1976, over 15% of all North Carolina families were female-headed.

Projection The number of families headed by a female with no husband present is increasing. By year 2000, they may represent almost ¼ of all families.

Female-headed families have among the lowest median incomes of all family types. They are almost three times as likely to have incomes below poverty as are all families.

Implication If these trends continue, an increasing proportion of children, especially black children, will live with their mothers only. Many of these children and mothers are likely to be in poverty.

Non-family households (persons living alone or with unrelated individuals) grew by more than 200% between 1960 and 1980.

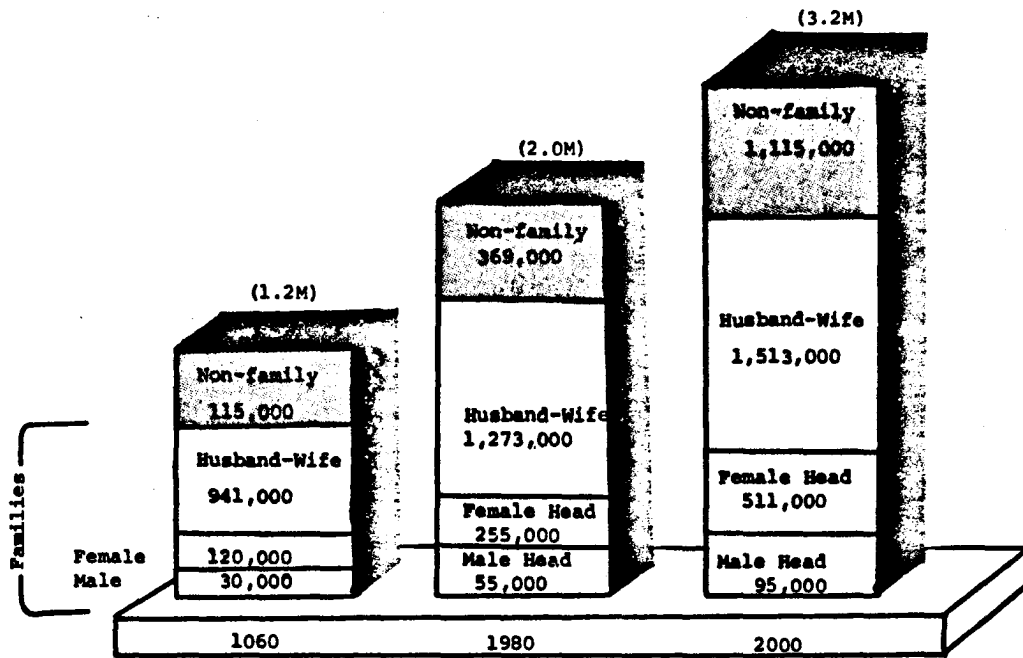
Projection If these trends continue, over one-third of all households may be non-family by the year 2000.

Implication Persons in such households may need alternative sources of social support and may use time and money differently from families.

North Carolina's average family size was 3.3 in 1976—below the national average.

Implication If this trend continues, patterns of consumption and use of time may change.

Household Types in North Carolina



MIGRATION

Since 1960, North Carolina's population has grown. Growth due to birth rates has been declining since the 1970's while growth due to people migrating into the state has been increasing. Migration is accounting for an increasing proportion of North Carolina's population growth.

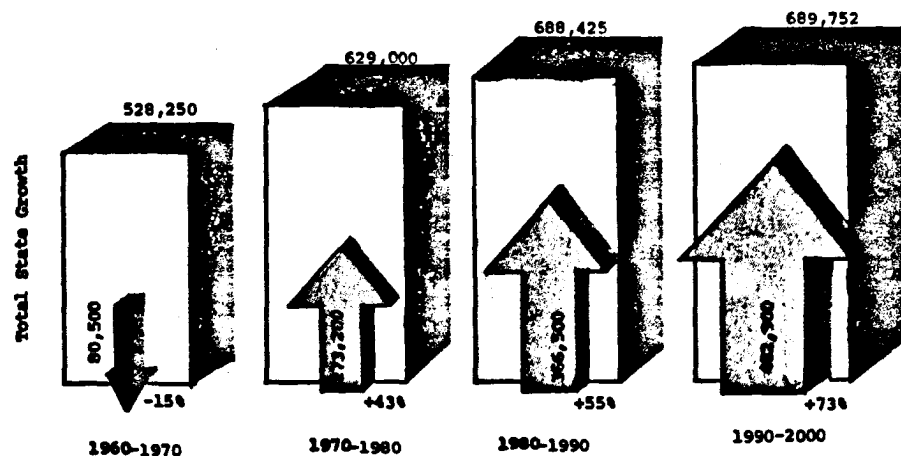
In the 1960's, more people left North Carolina than moved into it. This was due primarily to a substantial out-migration of non-whites. In the 1970's, more non-whites entered the state than left. Whites have continued to show a net in-migration since 1960.

Projection Between 1980 and 2000, 61% of the state's total growth could be due to people entering from outside the state.

Implications Persons moving into the state will have an immediate impact on the demand for housing and furnishings, and for health and education services.

New people may bring new values to numerous North Carolina communities.

Population Growth Due To Migration



BASIC HUMAN NEEDS

All people have basic needs which must be met if they are to lead productive, meaningful lives. These needs include:

- Decent housing
- Good health
- Opportunity for education
- Protection from crime

As North Carolina's population change in the next few decades, changes will occur in which groups have needs and what their needs are.

- The demand for housing will increase as household size becomes smaller and the population increases.
- As the population ages and diseases influenced by lifestyles become the state's major health problem, health care needs will change.
- As the school-aged population stabilizes and the need for skill training increases, the demand for educational services will change.
- Pressures on an already overcrowded prison system may increase.

These needs may be difficult to meet as financial resources become more limited.

Specific issues are treated below in four sections: Housing, Health, Education and Skill Training and Criminal Justice.

HOUSING

The number of single-person households is increasing and family size is decreasing.

Projection As fewer persons use each housing unit, more units and smaller units will be needed. If these trends continue, the number of housing units needed will grow much faster than the population. Between 1980 and 2000, over 1.2 million new housing units will be needed to meet this demand.

North Carolinians now occupy some 300,000 substandard housing units.

Projection Large numbers of older houses and mobile homes may become dilapidated in the next two decades.

Implication We need greater production of affordable housing to meet the growing demand. Maintenance and rehabilitation of existing units will be necessary.

Costs for single family dwellings increased almost 100% between 1975 and 1980.

Projection Demand likely will continue to exceed supply, further increasing costs.

Implication Increasing numbers of North Carolinians may be unable to afford adequate housing. Some groups, such as the poor and the elderly, are especially vulnerable to being "priced out" of decent housing.

Traditionally, older homes in declining neighborhoods have been a source of housing for lower income individuals and families. Such houses are becoming increasingly popular for renovation by middle income families, forcing out lower income residents.

Projection If these trends continue, housing alternatives for low-income citizens will be drastically reduced.

HEALTH

North Carolina is experiencing a rising incidence of health problems such as heart disease, lung cancer, emphysema and cirrhosis of the liver and unprecedented rates of homicide and suicide.

Implication We cannot rely on medical technology to restore the population to good health. Unlike the health problems of earlier years, today's major health problems result largely from personal lifestyles and may be preventable through changes in personal habits.

The cost of health care has risen much faster than the overall rate of inflation. Medical care costs in the state almost doubled between 1974 and 1980.

Implication Increasing costs, coupled with decreased funding in social programs, will mean that some North Carolina citizens will be unable to afford adequate health care.

Rural areas of North Carolina have traditionally been unable to attract enough physicians to serve their populations adequately. This problem has not been eliminated by the increasing supply of physicians in the state.

Projection Despite the fact that physicians may be in oversupply in the near future, some rural areas of the state are expected to remain underserved.

Non-whites have inadequate access to the factors affecting good health. The poorer health status of non-whites is evidenced by life expectancies. White males outlive non-white males by 7.4 years. White females outlive non-white females by 6.4 years.

Projection North Carolina's population is aging. By the year 2000, the state will have almost a million persons over age 65—some 13% of the state's population.

Implication Health care needs in the state will change because the elderly require more and different kinds of care than younger adults.

EDUCATION AND SKILL TRAINING

Projection North Carolina's school-age population will not increase and may decline in the next two decades.

Implications Declining or stable enrollments might free resources for improving educational quality or expanding services to other age groups.
On the other hand, the changing age structure of the population—larger numbers of elderly, singles, and childless couples—may result in less public support for educational programs.

In North Carolina, the state share of expenditures for primary and secondary education has been decreasing, while the local share has been increasing. This contrasts with the national trend which shows states assuming a greater share of support for education.

Implication This trend may have a negative effect on the quality of education available in those areas of the state that are unable to provide additional local support.

EDUCATION AND SKILL TRAINING (Cont.)

In recent years, North Carolina has expanded its efforts to recruit high-wage jobs. The quality of education is a major concern for industry seeking to relocate.

Implication Community colleges, colleges and universities will be called upon to train and upgrade our labor force and to meet demands for continuing education.

Traditionally, the enrollments of vocational schools, colleges and universities have drawn heavily from the 18-24 year old age group.

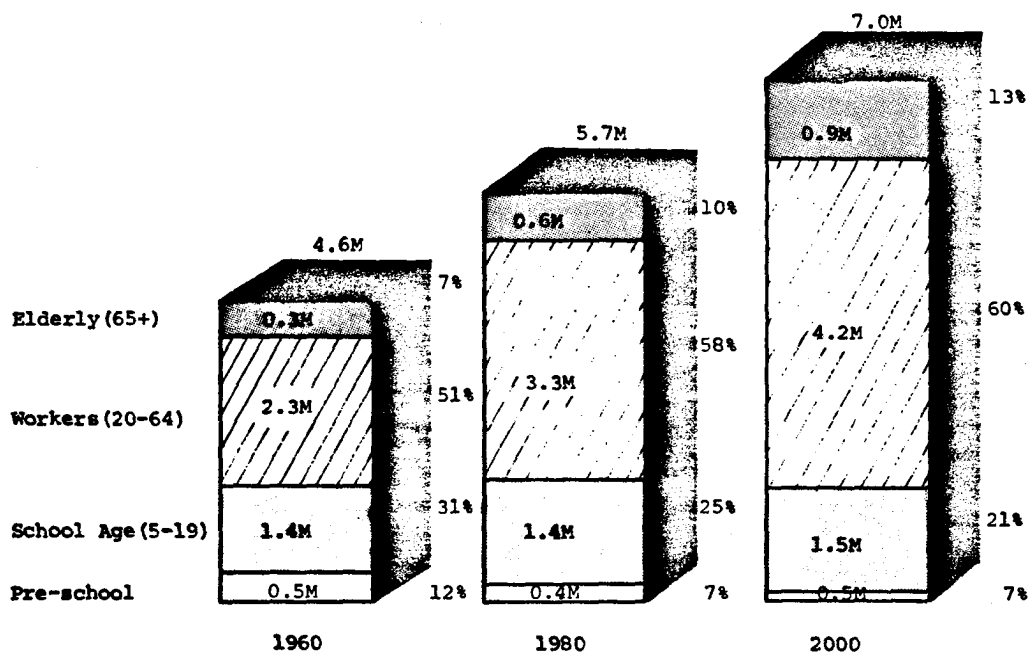
Projections This group is expected to decline in the next two decades both nationally and in the state.

The Carnegie Commission on Higher Education has predicted that, nationally, between 1982 and 1992, 300 institutions will close their doors.

Implication Higher education enrollments are expected to decline as the number of 18-24 year olds decreases. The extent of the decline will be determined by many factors such as the cost of education, the availability of jobs and other economic factors, the presence of compulsory military service, and the perceived value of an education.

Projection The impact of fewer 18-24 year olds on enrollments may be reduced by increases in enrollments of part-time and older students.

Composition of North Carolina Population by Age Group



CRIMINAL JUSTICE

Despite a relatively low rate of crime, North Carolina historically has had one of the nation's highest rates of imprisonment—about 2½ times the nation's average. Currently, North Carolina has some 16,000 inmates.

Projection The prison population could more than double in the next two decades if current trends continue.

North Carolina inmates serve longer sentences than inmates in most other states. North Carolina felons spend an average of 31.7 months in prison compared with a national average of 18.3 months.

Projection As the proportion of serious offenders in the inmate population increases, the average time served likely will increase.

Prisons built in the 1930's for minimum-custody inmates are now being used to house maximum custody inmates.

Projections Many of our prisons will need replacement or renovation; or we must increase the use of alternatives to incarceration.

Elimination of parole for life-sentence inmates until 20 years have been served could double the number of life-sentence inmates being housed.

The number of female inmates in the state increased by more than 80% between 1975 and 1980.

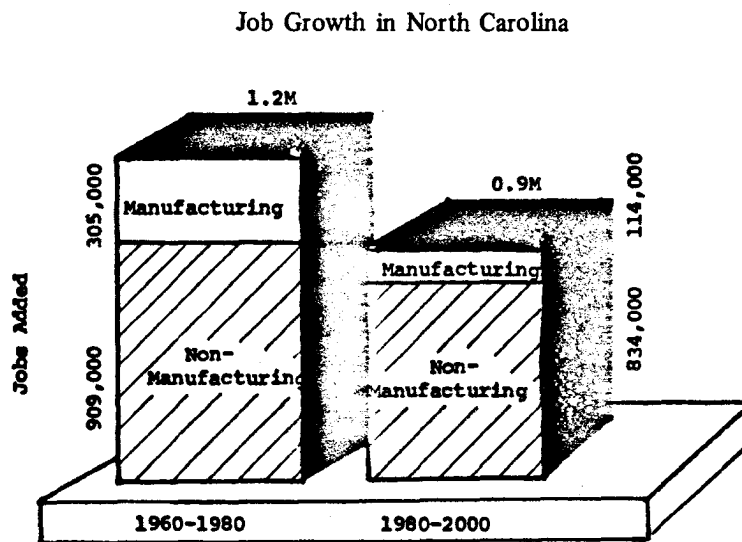
Implications Present facilities, which already are overcrowded, will be inadequate. We will face the choice of building new facilities (present cost of construction of a new cell exceeds \$50,000) or increasing the use of alternatives to imprisonment.

THE ECONOMY

Through the year 2000, North Carolina is expected to enjoy continued growth as 900,000 jobs are added to the economy. State gains will out pace the nation, averaging 0.5% more annually in personal income. As a result, the per capita income and wage gap between the U.S. and North Carolina will narrow.

However, significant changes will take place in the job base as some economic activities will expand much faster than others.

- Nearly 90% of all new jobs will be found outside of manufacturing and agriculture. Manufacturing jobs will decline from 34% of all jobs in 1980 to 28% by 2000.
- With manufacturing, our traditional industries such as textiles and tobacco will lose jobs while newer types of industries such as machinery, chemicals and electronics will be adding jobs.



Microelectronics will be a growth industry for North Carolina and the nation, building on advances in technology to bring about far reaching changes in our day to day lives and our use of information.

- Growth in the microelectronics industry, while not able to absorb all of the labor displaced by the decline of our traditional industries, will, nonetheless, place North Carolina on the leading edge of a major national expansion.

The changing type of manufacturing activity, while lessening dependence on a few large industries, will create a pool of dislocated workers. These workers may not have the work skills necessary to be absorbed into the growth industries, and will require training assistance.

Small business expansion will continue to be vital to state economic development. Like the rest of the nation, North Carolina gets a high percentage of new jobs from the expansion of small firms. Since much of our economic activity can be classified as small business, we will have an advantage in the future.

- Small business activity is predominant in the non-manufacturing sector where most of the new jobs will occur.
- Small business expansion in towns and rural areas is bringing these areas into the mainstream of growth.

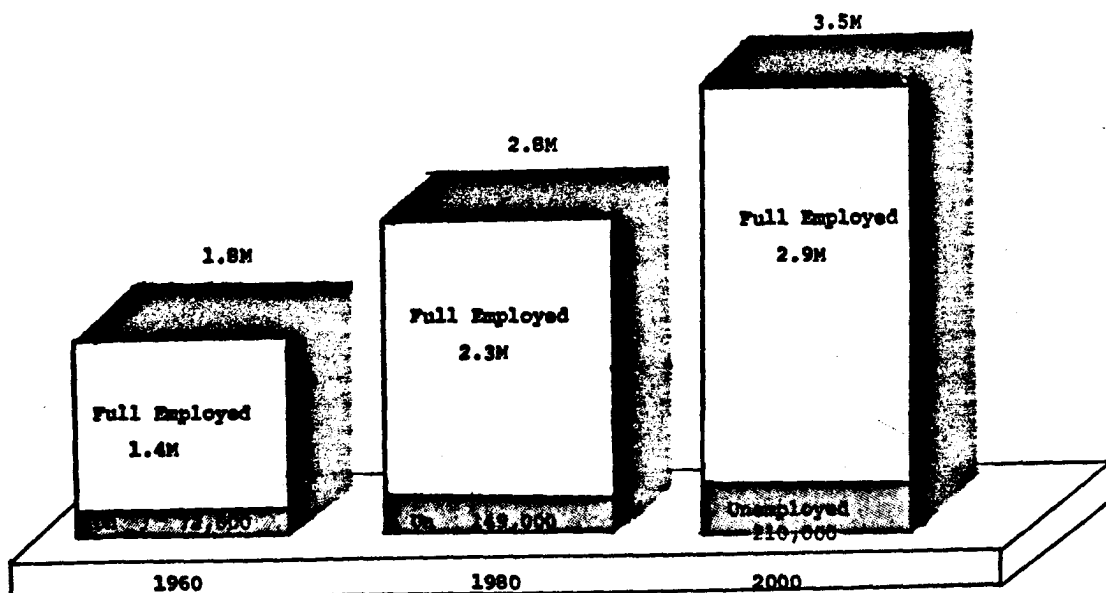
Military bases and tourism also will remain as essential elements of North Carolina's economy. Military installations and personnel and related civilian workers provide a large and relatively stable source of employment and income that support local business activity. Tourism has become our second largest seasonal employer, next to agriculture, and accounts for almost as much income as agriculture.

- Nevertheless, both the changing international situation and the rising cost of energy could bring about a substantial reduction of activity in both areas.

North Carolina's labor force is not expected to grow as rapidly in the future, constraining growth in the economy. The shift toward new, higher technology industry will, at the same time, require higher skill levels of workers.

- To avoid further constraints on North Carolina's economic growth, skill training for both new and displaced workers is essential.

Employment and Unemployment in the North Carolina Labor Force



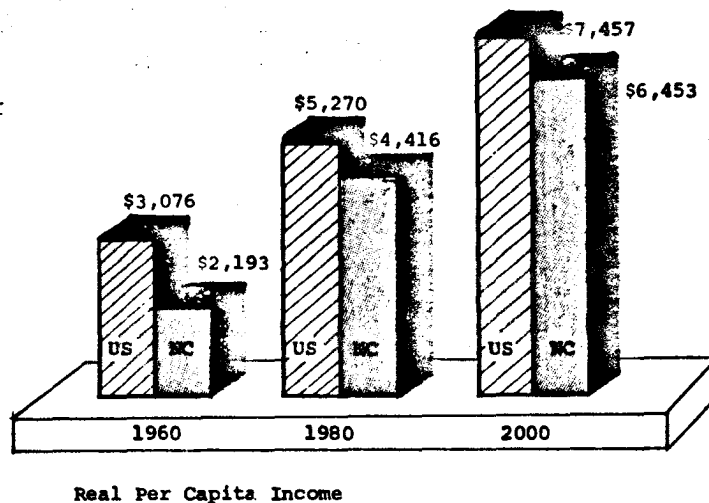
Economic progress for North Carolina is not a sure thing. Much needs to be done if the state is to continue to expand. A number of important issues are covered in the following sections on Economic Growth, Small Business, Microelectronics, Tourism and the Military.

ECONOMIC GROWTH

Over the past two decades North Carolina has experienced rapid economic growth. Personal income, even accounting for inflation, has increased by 140%.

North Carolina edged closer to U.S. per capita income, up from 71.3% in 1960 to 83.8% in 1980.

Comparison of United States and North Carolina Per Capita Income



Rapid industrial development has been a major factor contributing to state growth.

Since 1960 over \$18 billion has been invested in new and expanding industries and total employment has increased by 1.2 million jobs.

With growth has come diversification of industry, creating a more stable economic base.

Projections The future of the state economy is most promising:

Overall, economic growth will continue to out-perform the nation.

Real personal income growth will average 3.0% per year, 0.5% more than the nation.

Per capita income will close to 86.5% of the U.S. average in 2000.

North Carolina will add 834,000 non-manufacturing jobs and 114,000 manufacturing jobs between 1980 and 2000.

In spite of positive trends, there will be some concerns facing the state:

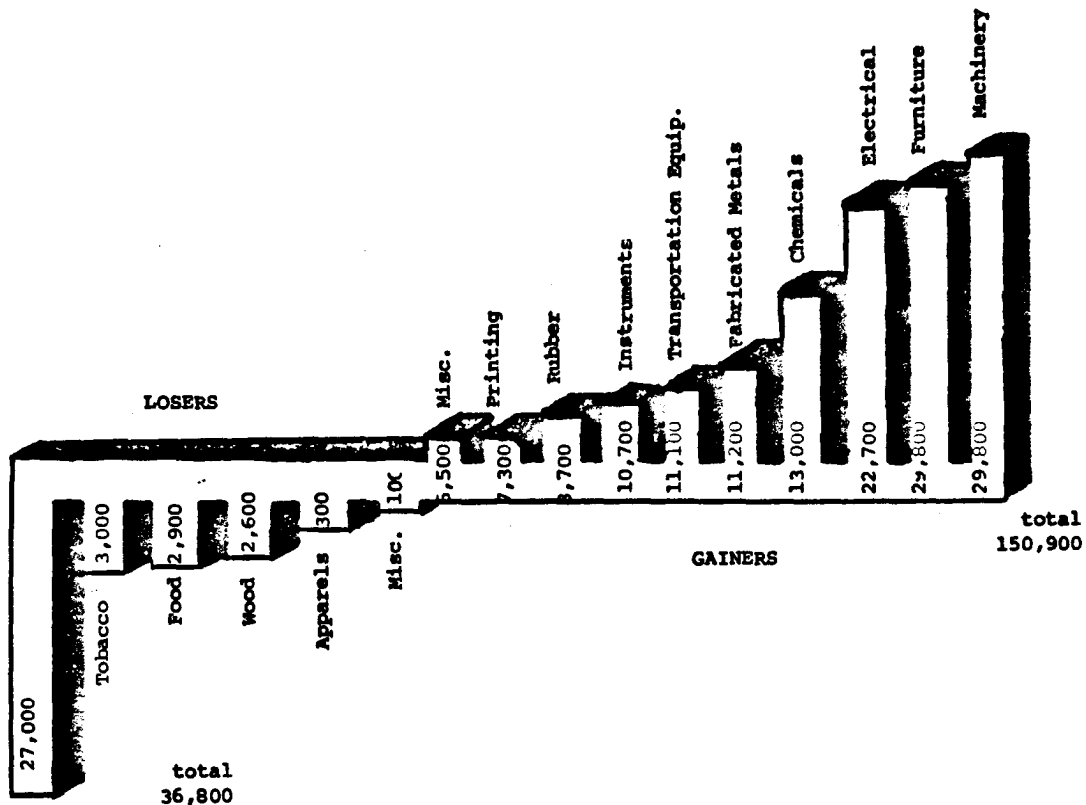
While total manufacturing employment will have a net increase, a net loss of jobs is expected in our traditional industries.

Textiles employment – by 27,000

Tobacco employment – by 3,000

Food processing employment – by 2,900

Changes in Manufacturing Employment in 1980-2000



Projection Average wage rates will be low, 20% below the nation.

Implication A large number of displaced workers is likely as skills required in the declining industries are not transferable to new industries.

MICROELECTRONICS

Integrated circuits have brought about dramatic technological advances in the electronics industry.

Projections The use of microcomputers and other small electronic devices made possible by microcircuits will have a profound effect on jobs and how large organizations function.

Internationally, electronics could become a \$400 billion industry by 1990, comparable to oil and automobiles, with microelectronics accounting for 10%, or \$40 billion of this total.

The volume of microelectronics business nationally could grow from \$10 billion annually today to \$100 billion by 2000.

North Carolina is expected to share in the growth of this industry.

Implications The growth of electronics and other industries will require advanced skill training responsive to the rapidly changing needs of industry.

SMALL BUSINESS

North Carolina's economy is largely one of small businesses; 97% of our firms employ fewer than 100 people and provide almost 50% of the jobs in the state.

Nationally, small businesses account for 66% of all new jobs.

Projection In North Carolina, small business likely will provide most of the additional 900,000 jobs expected by the year 2000.

Implications With small businesses so important to the economy, the state needs to: Insure sufficient financing for new firms and for expansion, and recognize the opportunities that exist for development in rural areas and small towns.

The microelectronics industry could stimulate growth in small business through purchasing services and support products.

More advanced, higher skill employment will be required in the small businesses supporting microelectronics and other growing industries and businesses.

TOURISM

Tourism is the second largest seasonal employer in the state with a payroll of over \$900 million annually, and contributes additional expenditures to total \$2.1 billion.

About 50 million tourists visiting North Carolina generate nearly \$400 million in taxes for state and local governments.

Recent trends show a slight decline in out-of-state travelers coming to North Carolina, due to the increased cost of gasoline.

Implication: Energy costs will continue to hold the key to growth of our tourist industry.

MILITARY

Federal defense spending in North Carolina returns 30% of the tax dollars we send to Washington, D.C.

Of the \$2.2 billion North Carolina receives annually in defense spending, 50% is in the form of military and civilian pay.

North Carolina currently has over 100,000 people (civilian and military) employed in the defense sector and over 36,000 retirees from the military.

Projections Present U.S. defense spending is estimated to average \$200 billion in 1981-82 and is expected to grow by 4.2% in real terms by 1990.

North Carolina's portion of defense expenditures could reach over \$4.0 billion by 1990 and over \$6 billion by 2000 in wages and other costs associated with operation of our military bases.

In the near future, a large portion of the increase in defense spending will be for sophisticated electronic equipment.

Implication Growth of microelectronics in North Carolina could increase our military sales through equipment contracts.

RESOURCE CONSTRAINTS AND THE ENVIRONMENT

North Carolina's heritage of clean air, productive lands and abundant water has contributed to our high quality of life. However, as economic growth continues, the potential clash with environmental concerns increases.

- Many of our larger cities soon will face water shortages because of limited water capacity of river basins.
- Tourist, second home and retirement areas are growing rapidly in many environmentally fragile areas on the coast and in the mountains.
- North Carolina's energy demand will continue to grow—conservation and wise development of energy sources may be critical to meeting this demand.
- Nearly 120 million gallons of hazardous waste, a by-product of economic development, is generated annually, posing a threat to people, water and air quality.

Three critical issues for our environment: water resources, energy and hazardous waste, are discussed below.

WATER RESOURCES

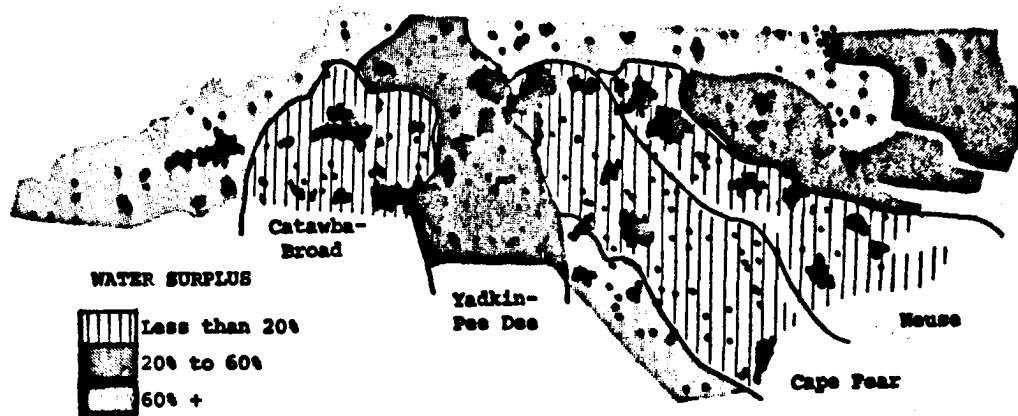
Most of the state's people live in places that are not expected to have sufficient water in the future—Winston-Salem, Greensboro, Durham and Raleigh.

Three of our major river basins are already approaching the limits of supply in their upper reaches, and are those basins for which major growth is projected.

The Neuse, Cape Fear, and Catawba-Broad basins, with half the state's population, will normally have less than a 20% surplus. During drought conditions there will not be enough water to support the people and activity in these basins.

Implications Water is likely to become one of the major considerations in economic development during the next ten years, particularly in the Piedmont Crescent which includes Charlotte, Winston-Salem, Greensboro, Durham and Raleigh.

Projected Water Surplus in North Carolina River Basins



Projection	Federal and state funding reduction will place greater demands on local governments to finance and maintain water and waste-water facilities.
Implication	The growing shortage of water will make it necessary to plan for the location of high water-use industry within river basins and to assist existing industry in developing reuse and recycling technology and in building reservoirs.
Projection	Over the next 20 years, our population will continue to be dispersed across the state. Some of our larger cities in the Piedmont may grow together. Smaller cities in the east and west, as well as in the Piedmont, will contain larger concentrations of people and increased economic activity.
Implication	Increased pressure on the land will make it necessary to develop responsible land management practices and to adopt development strategies that reduce pollution from industrial waste and from pesticides and fertilizers that wash off the land.

HAZARDOUS WASTES

A total of 1,442 companies in the state generate approximately 120 million gallons of hazardous waste and over 200,000 cubic feet of low-level radioactive waste each year. These companies employ approximately 400,000 people and pay more than \$5 billion in wages annually.

Implication	Future industrial development and expansion may depend on developing methods of recycling, exchanging, storing or treating hazardous wastes. It may be necessary to provide incentives for industry to reduce, recycle or treat hazardous waste or to change to production methods which do not involve by-products.
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There are no facilities in North Carolina approved by the Environmental Protection Agency for the disposal of hazardous wastes. Technology is still imperfect for handling hazardous wastes and four out of five landfills constructed in the past five years have shown some signs of leaching.

Implication	Several unsafe sites already exist in the state. They will not disappear and will become increasingly costly to clean up. The safe clean-up of existing dumps, or other unsafe sites, will be crucial to not only improving the environment, but to the continued economic growth of the state.
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ENERGY

Our state imports over 90% of its fuel.

Projection	The private automobile will remain the principal means of transportation through the 1980's. One-third of all gasoline is used for commuting to and from work. Three-fourths of that fuel is used by workers who live 10 miles or more from their jobs.
Implication	Dispersed settlement increases our need for conservation and efficient management of our fuel through substitution of smaller and more efficient automobiles and through car-pooling and mass transit programs.
Projection	Along with petroleum, electricity and natural gas will continue to be our major sources of energy.

ENERGY (Cont.)

Implications Cost and potential shortages will mandate effective conservation efforts.

Nuclear power plants will be the subject of debate for the next few years and resolution of this debate will affect energy availability and price.

North Carolina does have several promising alternative energy sources.

Implications Wood can be used for heating instead of oil, electricity and natural gas. As much as 10% of our present energy needs in homes and industry could be met with wood. Wood not only will be a major home heating fuel, but through expanded research may serve many of the purposes now being met by petroleum.

Our state is ideally suited for many of the solar technologies in home and business. Twenty percent of our energy needs in the state can be met by solar sources by 2000.

Peat, a highly organic soil, is more than 70% combustible and could be used in industrial and electrical production. North Carolina has about one million acres of peat mainly in the coastal region of our state.

Implication The degree to which it is used will depend on how well we are able to resolve the environmental questions.

FOOD AND FIBER

North Carolina is a major producer of food and fiber. Our soils and climate can produce nearly everything except citrus fruits and tropical woods.

International demand for food and fiber products will continue to grow as population increases. Many other producing areas are already reaching their limits:

- Florida is rapidly losing farm land to development.
- California and Arizona are facing major water shortages.
- Europe and Scandinavia are already at maximum timber production.

North Carolina has an ideal location in relation to major U.S. and European markets. There is vast potential for expansion, but there are many constraints which must be addressed, such as:

- Our rapid loss of prime farmland, over 42,000 acres per year, will mean we must produce more on 18% less land in 2000.
- Substantial capital will be needed for water reservoirs and irrigation equipment for fruits and vegetables.
- Our seaports and roadways to markets must be improved.
- Growing pollution of our shellfish waters poses an ever increasing threat to continued production.

Continued growth is expected but not guaranteed for our food and fiber industries. Specific issues and trends which will affect our agriculture, forestry, and seafood industries are presented in the following three sections.

AGRICULTURE

North Carolina ranked 6th in the nation in number of farms and 12th in cash receipts from farming in 1978.

The average size of a North Carolina farm increased from 85 acres in 1960 to 110 in 1975; the average age of the owner is now 52.

Projections North Carolina's traditional family farm is moving toward corporate ownership.
The demand for farm products is expected to increase by almost 80% in the year 2000. One of the most promising expansion areas is in vegetables which will require substantial irrigation systems.
Significant expansion is also expected in pork, egg, broiler, turkey, corn, soybean and beef production.

However, continued growth is threatened by our loss of prime farmland. North Carolina is currently losing over 42,000 acres annually.

Projections If this trend continues, North Carolina will lose over 1 million acres of prime farmland or 18% of its current total by the year 2000. The United States as a whole will lose some 23 million acres or 7% of its current total.

Implication Without protection, the loss of prime farmland will continue.

Tobacco is also threatened and is coming under increasing pressure from foreign imports.

Implication Maintaining our tobacco industry will require continued emphasis on quality, where we have the edge.

Farming is becoming more complex, more specialized and now uses great amounts of capital.

- Implications**
- Future farmers will need more and better information provided regularly from research and extension program through computers and public T.V.
 - More farmers will find it necessary to farm on a year-round basis to maintain labor and spread out the high cost of equipment.
 - The national and international fruit and vegetable markets are complex and risky, but are very likely areas for our expansion.
 - As we seek to expand output, rising energy costs may force a return to labor intensive methods requiring increased low-wage labor, perhaps from Mexico and the Caribbean.
 - Business training and assistance ranging from cashflow to contract negotiation and even investment packaging are likely needs as farmers face the challenges of the next two decades.

FORESTRY

There is currently an international shortage of softwood.

- Projection** International demand for wood fiber is expected to increase by 40% to 60% by the year 2000 and to double by 2030.
- Implication** In addition to traditional uses, wood fiber has the technical potential to provide nearly all of the chemicals now derived from petroleum. Major development in this area would substantially increase projected demand.
- Projection** Southeastern United States will play a major role in meeting the increased demand, especially in view of the limitations on other potential sources.

In North Carolina, 64% of all land is classified as commercial forestland. Of this, 80% is owned by individuals, mostly in small tracts. Productivity on most of these small woodlots is only about 40% of the potential. Only one acre in nine is replanted after it is cut.

- Implications**
- Increased volume, by as much as 50%, is possible through new strains which are now available, as a result of genetic engineering.
 - Moreover, using new tissue culture techniques, it will be possible in the next couple of years, to reproduce from prime stock only 10 years into production, instead of waiting 30 years for the new strain to mature and bear seed.

Realizing the full potential of forestry in North Carolina will involve:

- Implications**
- getting information out to the 250,000+ landowners;
 - mobilizing the capital needed for improvements in timber;
 - assistance in forest economics and business planning;
 - supporting additional research and technology transfer.

SEAFOOD

North Carolina has a rich and diverse aquatic resource base including 2.8 million estuarine acres within the three mile limit of our coastline.

Commercial fishing and related industries in North Carolina accounted for about \$500 million in 1980.

Projection This sector of the economy could be significantly increased by the year 2000, if intense management efforts are implemented.

Implication For example, if one clam or scallop were placed in each square foot of an acre to supplement natural stock, the return per acre per year would increase by \$10,000.

The development of processing and marketing facilities in North Carolina has been aided by investments in Wanchese Harbor and special small business assistance efforts.

Implication But additional efforts still may be needed.

Today, large sections of our waters are closed to fishing and/or shellfish harvest because of pollution. Also, algae growth in Pamlico and Albemarle sounds is beginning to inhibit maintenance of the fish population.

Implication Improved productivity of our coastal waters through control of pollution and fresh water intrusion is essential to expansion of shellfish and fishing activity.

IMPACT OF TECHNOLOGY

Technology is a "way of doing." Throughout history, changes in technology have had a profound impact on the way we live.

- Changes in farming practices in the 16th century dramatically increased production, freeing labor to work in factories and towns.
- Steampower, and later electricity, brought about an "industrial revolution" in the 19th century, increasing the productivity of labor, shortening the work week, and radically changing the quality and manner of living. Before the Industrial Revolution, "work" and "home" were almost always one and the same place. Now, "going to work" is the norm.
- Advances in molecular biology may revolutionize agriculture, forestry, pharmaceuticals, and materials conversion.
- Changes in our capacity to store, process and communicate large volumes of information may alter radically the way we live and work. For example, working at home may again be possible through communication advances.

INFORMATION AND COMMUNICATION

At the present time, more than 50% of all jobs nationally are involved in preparing, processing, storing or communicating information.

Implications All of these jobs will be affected by new technologies.
Much of the manual and routine work now performed by office personnel will be done by minicomputers and integrated word processing equipment in the future.

The emerging "office of the future" provides an example of how jobs and work relationships likely will be restructured as traditional boundaries between jobs disappear.

Implications Multipurpose office machines now perform several jobs at once, replacing several separate pieces of equipment and their operators.
But these machines require an operator with a wider range of skills than associated with a traditional clerk-typist.
Additional investments in electronic equipment can substantially increase the productivity in offices of the future, such as government, banking and insurance.
A wide range of new capabilities could be made available, such as:
Information storage and retrieval (electronically filing and retrieving data for decisions).
Personal processing (manipulating words, numbers or graphics in writing analysis).
Conferencing by telecommunication, video as well as audio.
Activity management (automated calendars, ticketers and reminder files).
The rate at which the new technology will be applied will depend in large part on how fast people can adapt, how fast they can be retrained and how fast their jobs can be restructured to accommodate and make the best use of the new technology.

MOLECULAR BIOLOGY

New techniques in molecular biology are leading to new areas of research. In 1980, approximately 500 articles were published related to recombinant DNA; this compares with about 40 in 1970.

Industrial activity is growing exponentially. It is estimated that industrial investment in biotechnology research in 1980 was in excess of \$250 million, up fivefold from the previous year. Combining industrial and venture capital investments results in a total near \$1 billion.

Projections By the year 2000, sales of products resulting from biotechnology will total at least \$40 billion worldwide.

Productivity improvements in agriculture are reaching a plateau. At the same time, world food demand is increasing. Ralph Hardy of DuPont says, "Soybeans and feed grains would have to increase 150 million metric tons a year to 500 billion by the year 2000 if the world is to keep eating meat." Advances in molecular biology can help us meet these needs.

Our educational and research institutions must have the capability to keep abreast of these advances to fulfill their training responsibilities.

Implication In some areas, with appropriate investments, our institutions can be at the forefront.

Advances in knowledge and the applications of that knowledge to agriculture, forestry, and other fields will come from scientists in a broad range of disciplines.

Implication All the relevant scientists from public and private universities and industry should be involved in any state initiatives.

New relationships among federal and state governments, industry, and universities will be required to attract the funds necessary to support the research and training.

Implications Industrial development strategies, both attracting new industry and assisting industry now in the state, will need to include procedures by which the state can benefit from the phenomenal industrial growth that is expected.

The public needs to understand the advances in molecular biology and the reasons for the optimism for applications in agriculture, forestry and other fields.

TRANSPORTATION

Our transportation system has been and will continue to be the backbone of the economy. It offers mobility for our people, movement for the goods we use and produce, and access to the land. It is cars, buses and trucks on highways, and it is railroads, airways and waterways. Transportation is a vital ingredient of our continued growth and welfare.

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| Projection | Demand for transportation service will continue to increase, as our growing numbers must move about to work, to play, to shop, to go to school. But changes are likely due to the rising cost of transportation and the changes in our economy. |
| Implications | <p>Personal travel will increase by as much as 80% in the next two decades, with increases in both our urban and rural areas.</p> <p>Freight movement will increase by as much as 200%, serving our growing population and moving our increasing production.</p> <p>More of personal travel will be for leisure, while a smaller part will be for business activity. As transportation costs increase, much business travel will be replaced by audio and visual communication.</p> |
| Projections | <p>To satisfy our growing demand for transportation, we will continue to use a transportation system much like we have today. The highway will serve as its backbone, as our development patterns stay dispersed. To cope with the pressures of rising transportation costs, we will see improvements in existing technologies rather than the introduction of new technology.</p> |
| Implications | <p>Substantial improvements in auto fuel efficiency will likely support continued expansion of the state's tourist industry, as well as allow us to keep using the auto for our daily travel needs.</p> <p>Demand for public transportation and ridesharing in our urban areas will continue to increase, as more of us choose to avoid the inevitably higher cost of auto travel.</p> |
| Projections | <p>The bicycle will see a continued increase in usage in North Carolina, both as it relates to tourism, and for short trips to work and for errands, particularly in urban areas.</p> <p>The railroad network will continue to shrink, abandoning many of our smaller population centers.</p> |
| Implications | The railroads will continue to be a primary mover of our goods, but as we continue our dispersed development, increasing truck traffic will put more pressures on our highways. |
| Projections | <p>Business air travel, particularly general aviation, will continue its significant growth as the costs of travel continue to be balanced against value of time for necessary trips.</p> <p>Commercial aviation service to our communities may be modified as the larger airlines and commuter airlines experiment and change their service patterns under free market conditions.</p> <p>The demands that we make for transportation likely will lead to some unfulfilled expectations and some changes in our thinking. We have long prided ourselves on being the "Good Roads State," and our hopes for the future will depend on good roads. But the need to reduce our energy dependence and to recognize financial constraints demand that we do more with what we have now. Over \$500 million per year for highway construction would be required just to provide a minimal level of service.</p> |

Implications

In order to protect the large investment already made in the transportation system, overall funding priority will be given to maintaining that system.

A public acceptance of gradually worsening traffic conditions will be required because of the high cost of adding more capacity.

We will begin to adjust by more effectively using the facilities we have now, by initiatives such as carpooling, using buses and staggering work hours.

We will have to seek new financing schemes for our highways as gasoline consumption, and thus the primary revenue source for supporting the highway system, declines. With the emphasis on maintenance, financing will better reflect the concept of payment for the use of the road.

CITIZENS/GOVERNMENT

The relationship of citizens to their government is shifting, and some recent changes give reason for concern.

- Voter participation was quite low in November, 1980.
- Those who did vote in the 1980 election indicated a clear desire for reduced spending and taxation. Whether or not services dropped by the federal government will be provided by another level of government is a key question.
- Many citizens feel that their tax burden is too high. The federal tax burden, even with decreased services, is not expected to decline. North Carolina is a low tax state. Citizens will be forced to address the need for higher local taxes to replace or supplement programs formerly provided by the federal government.

CITIZEN INVOLVEMENT

Basic to the American philosophy of government is the idea that government should be “of the people, by the people, and for the people”. Obtaining citizen involvement in shaping government has been and is likely to continue to be difficult.

In North Carolina and in the United States between 50% and 60% of the eligible voters participated in the November elections.

In the U.S. the 1980 turnout of 59% was the same as for the 1976 elections but less than the 68% voting in the 1968 elections.

In North Carolina, the 52% turnout was up compared to the 49% of 1976 and 1968, but still below the national average.

Implication These trends indicate substantial voter apathy.

The number of lobbyists registered in North Carolina has increased from 144 in 1957 to 700 in 1981.

Implication Lobbyists representing special interest groups are increasingly participating in the governmental process.

- The Open Meetings Law and the Administrative Procedures Act are examples of attempts to open government to citizens.

Implication The adequacy of such efforts has been questioned and more and better efforts may be required.

A recent Gallop Poll indicated that 89% of urban residents surveyed would be willing to volunteer for community service.

The number of volunteer hours in North Carolina has been estimated to have increased by 390% from 1977 to 1979. In 1979–80 volunteers contributed about 40 million hours at an estimated value of \$226 million.

Implication Volunteers are likely to become an increasingly important resource.

GOVERNMENT SERVICES

During the 1960's and 1970's, federally sponsored government programs increased in scope and magnitude. Recent election results and public opinion polls indicate increasing public concern about the growth in government and associated increasing tax burdens.

Projection Defense, welfare, social security and veterans' benefits are major priorities for federal spending. Those programs accounted for 64% of the federal budget in 1980 and are expected to increase to 81% by 2000.

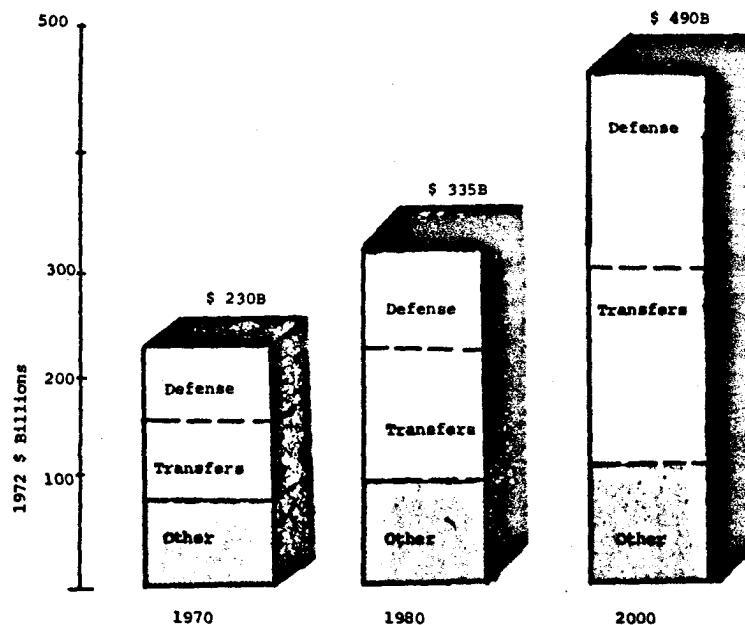
Implication Services eliminated from the federal budget must be picked up by state or local governments or dropped.

In recent years increased grant-in-aid programs available to local governments from federal sources promoted an expansion of local government services that might otherwise not have been possible.

Projection Many of these federal programs are targeted for elimination or severe reductions.

Implication Communities will have to rely more heavily on their revenue sources in the future.

Federal Government Expenditures



PAYING FOR GOVERNMENT

North Carolina ranks 46th in per capita state and local taxes. Income and property taxes are the primary sources of tax revenue with almost 52% of the State's General Fund coming from income taxes and over 71% of local government revenues coming from property tax.

Implication Given citizen concern over rising taxes, North Carolina and its communities are unlikely to increase the rate at which citizens are taxed.

Income tax collections increase as a result of inflation, while property tax revenues do not.

Implication Services financed through property or user taxes are likely to require additional sources of funds or face a reduction in service level. For example, as the cost of providing local services such as garbage collection rises, user charges will have to go up or services be cut back.

State and national taxing trends have been to provide tax relief for specific groups or purposes as opposed to overall tax reform. For example, North Carolina provides additional exemptions for the elderly and tax credits for the installation of solar heating equipment.

Implication The piece-meal approach to taxation forestalls tax reform and places an increasing burden on the average taxpayer.

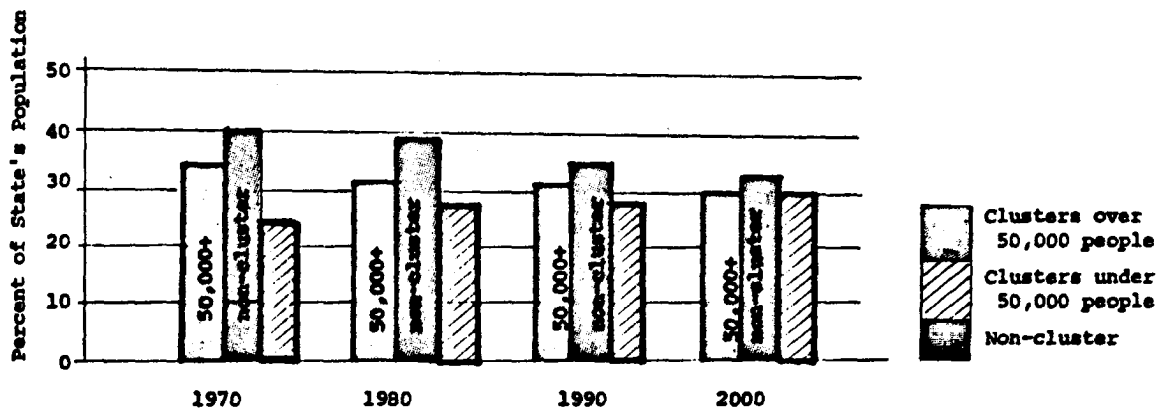
North Carolina's population in small and medium cities and their suburbs (under 50,000) has increased faster than other areas since 1970.

Implication This population growth is increasing the demand for urban-type services. These demands add to the burden of local governments now facing the prospect of picking up services formerly provided by the federal agencies.

Some service demands in local areas are met through special tax districts. These special districts have increased from 251 in FY 69-70 to 523 in FY 78-79.

Implication This trend may indicate an increased reliance on the use-tax concept, i.e., those who use the service pay for it.

Changing Settlement Patterns in North Carolina 1970-2000



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