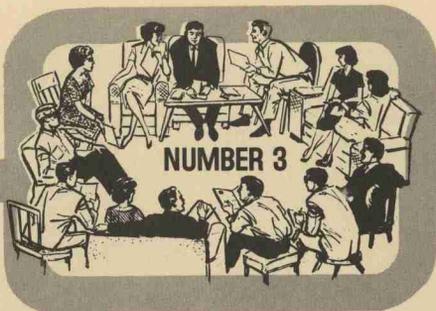


DECISIONS FOR PROGRESS



PREPARED BY THE STAFF OF THE AGRICULTURAL POLICY INSTITUTE, N. C. STATE COLLEGE, RALEIGH, N. C.
FOR THE NORTH CAROLINA AGRICULTURAL EXTENSION SERVICE

Education and Growth

Education raises the ability of our human resources to produce more goods and services and increases the potential for economic growth. Hence, a sound educational program is essential for economic prosperity. Yet, you still hear complaints about education costs. Little do people realize that the cost of education is really an investment in disguise—an investment in people and economic growth. When industries allot money for buildings and equipment, they expect to get some dividends—and they usually do. The same holds true for education. The more our young people are educated, the more likely they will spread their knowledge and influence in the community, state, or nation. Probably no expenditures pay higher dividends than those for education.

Education Affects

Employment

■ Most jobs today require at least a high school diploma or some special training for a trade or occupation. Education is important in determining how much a person will earn during his career. Three-fourths of the professional and technical workers in the U. S. in 1959 had some college education. Only 6% had not finished high school. Yet, in some other occupations, the majority of the workers had not even finished high school.

Not only do people with little education

earn less, but they also make up the largest group of unemployed. In 1959 nearly 9% of those who did not finish high school were unemployed. This is about twice the rate of unemployment among high school graduates and almost four times that of those with some college education.

You might think that skilled and professional jobs would become scarce as more and more people are better trained and educated. This isn't true! There are many vacancies to be filled. Demand for skilled and well-trained workers has kept pace with the general rise in the educational level of individuals. As a result, the wide differences in

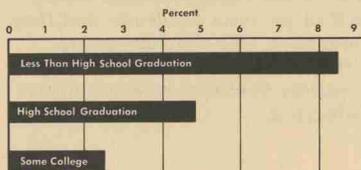
Figure 1. Education of Workers According to Occupation in U. S., 1959.

Occupation	Less than high school graduation	High School Graduation	Some College Education
	Percent		
Professional and Technical Workers	6	19	75
Proprietors and Managers	38	33	29
Clerical or sales Workers	25	53	22
Skilled Workers	59	33	8
Semi-skilled Workers	70	26	4
Service Workers	69	25	6
Unskilled Workers	80	17	3
Farmers and Farm Workers	76	19	5

income, according to educational level, have been maintained.

Only 8% of the national income is spent for education. Since this state's per capita income is low, North Carolina invests a higher proportion of its personal income for public schools than does the rest of the country.

Figure 2. Percent Unemployed by Amount of Education in U. S., 1959.



Outlook for the 60's

High school enrollments in the U. S. will increase nearly 50%—on top of a 40% increase during the 1950's. There will be a 70% increase in college enrollments—compared with a 40% increase during the 1950's. This indicates that youths from North Carolina will be competing in a national labor market of better trained individuals.

Higher enrollments require increased school expenditures. Other factors which may increase educational expenditures are:

1. Increase in teacher's salaries to keep pace with the probable rise in earnings in other occupations.

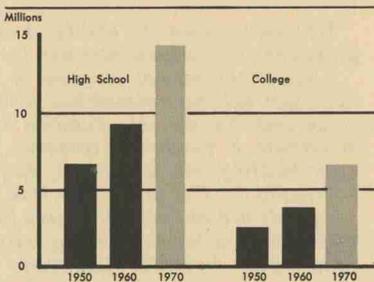
2. A larger proportion of enrollment in secondary schools, where expenditures per child are higher.

3. A larger share of the enrollment moving to high-income communities, thereby increasing the need for capital outlays in areas that already invest above-average amounts per pupil.

Our young people today are better educated than their parents. Ten years ago, 68% of the 16- and 17-year-olds in the U. S. were enrolled in public schools. Today, 80% of this group are attending public schools.

Yet less than two out of three American youths are getting high school diplomas. And not more than one out of six receives a college degree. North Carolina's record is even worse.

Figure 3. School Enrollments in the U. S., 1950-1970



The Problem

As a whole, educational standards in the nation and in the state are on the upswing. This is mainly because of state laws and the demands by the business world for better trained workers in particular jobs.

Despite this general improvement, it's estimated that 7½ million young people entering the U. S. labor force during the 1960's will not have completed grade school.

The problem is two-fold: (1) how to keep our young people in school and (2) how to

provide the proper training necessary to meet the requirements of many of our complex industrial jobs.

To overcome these problems we must focus attention on the organization and financial support of our educational system.

Goals

What goals should we strive for in maintaining and/or furthering educational opportunities in the state and country? What is necessary to provide the proper education and training so that every individual can make his maximum contribution to economic growth in North Carolina and the nation in general?

Alternatives

Once you have decided on what goals you think are important for a sound educational system in your community, you should do some thinking about what direction to go. Decide which alternatives should be emphasized in order to reach these goals.

1 Should we continue as we are?

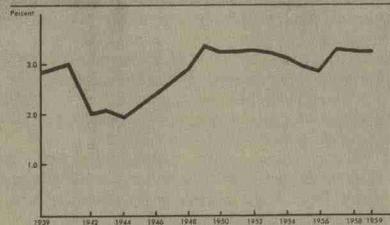
The educational system in public schools in North Carolina looks something like this:

a. Current expenses per student in average daily attendance were \$219 in 1959-60 . . . about $\frac{2}{3}$ of the U. S. average.

b. Some 78% of the operating funds come from state, 18% from local and 4% from federal sources. Dependence upon city and county sources for revenue is low, relative to most other states. This avoids some of the tax burden on real property as compared to other sources of revenue. However, many supplemental educational programs are primarily dependent upon such local funds.

c. Although dollars invested in education

Figure 4. Current Expenses for Public School as a Percentage of Personal Incomes in North Carolina, 1939-1959.



have risen, current expenses for schools did not increase much until 1960-61, as far as percentage of total personal income was concerned. In fact, there wasn't any percentage increase during the 1950's.

d. The curricula of some high schools are limited only to the five required subjects: English, Mathematics, Social Studies, Science, and Health.

e. Many schools maintain small staffs which allow them to teach only the minimum requirements. Some 128 of the state's 900 high schools have five or less teachers.

f. Drop-outs in public schools and the low percentage of high school graduates who attend college means that only 10 out of 100 who entered the first grade 12 years ago in North Carolina will finish college.

With an economy growing more and more complex and requiring greater skills, how are we going to supply workers with the proper training? Will the present organization and level of support for education suffice? Or should some redirection be attempted?

Figure 5. Education Received by Youth in North Carolina

FOR EACH 100 WHO ENTER THE FIRST GRADE. . . .			
35 drop out before completing 8th grade	23 drop out between 8th grade and high school graduation	42 graduate from high school	
		22 receive no formal education past high school	20 enter college etc.
		10 drop out	10 graduate

2 Should we increase formal education?

Industry and business practically demand at least a high school education for workers . . . and a college degree in many cases. Young people who drop out of school don't understand this. Obviously, any program to emphasize formal education would encourage more youth to go to college. At the same time, attention must be concentrated on reducing drop-outs in public schools and on strengthening the public educational programs available to youth and adults.

If we would stress higher income opportunities for graduates, our efforts to make youth stay in school might be more successful. The responsibility is up to parents, more than counselors, to make young people aware of the importance of a good sound education.

We have 59 colleges in North Carolina. Seventeen of these are public colleges with 32,697 students, and 42 are private colleges with an enrollment of 29,392 students. Thirty-four are 4-year or senior colleges and 25 are junior (2-year) colleges.

It costs money to go to college for 4 years . . . approximately \$5,000 to \$6,000 and loss of possible earnings during the time an individual is in school. To many young people, this cost is an impossible hurdle—even though it means an additional lifetime earning equal to 30 to 40 times the cost of a college education. In recent years there have been more scholarships, loans and grants available to those who do not have financial means of their own.

The prime question is to what extent

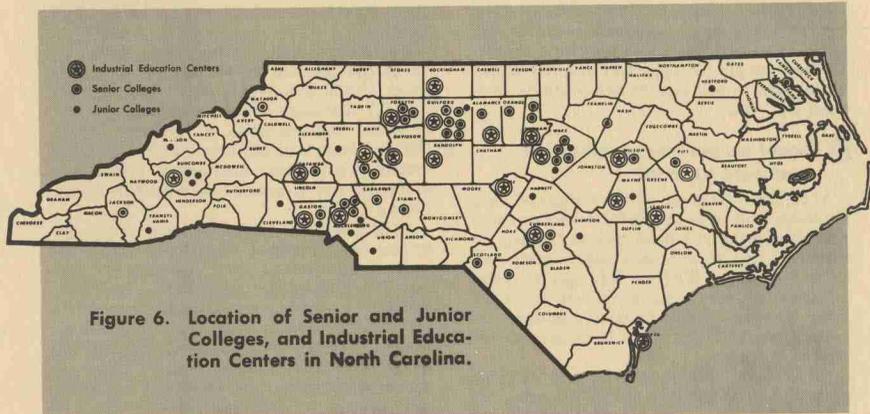


Figure 6. Location of Senior and Junior Colleges, and Industrial Education Centers in North Carolina.

Staying-in-school cannot be stressed enough to young people if they are to participate fully in our economy.

In 1960, North Carolina sent 35% of its high school graduates to various colleges. And now the state is concerned with overcrowding colleges, or of facing the possibility of stricter entrance requirements until colleges can accommodate all entrants. Stricter entrance requirements may solve part of the problem. But won't these requirements force a large proportion of our high school graduates to either give up the idea of a college education, or go to college in another state?

should educational costs be borne by the individual compared to society as a whole? Educational costs already make up a large share of state and local taxes. When it comes to public support of education, the source of funds may have little to do with the total cost of education. However, if sources of financial support could be widened to the state or national level, the opportunity for education would not be restricted by differences in income of various communities.

Government aid in education isn't new. World War II and Korean veterans got financial support to continue their education. This

has paid handsome dividends—because better educated people generally earn higher incomes. Furthermore, those who go to college or vocational schools will be better able to support themselves and not depend on welfare assistance from the state or national government.

A redistribution of education expenses between states might mean that the industrial states would pay the heavier share of education costs. Currently, these areas benefit the most because they are able to lure skilled workers who were educated in other states.

The percentage of persons with a high school education or higher, who migrate from North Carolina, exceeds the migration rate of those with only average training. This loss of highly-trained youth should be of concern to all of us. Thus, activities to create new jobs in this state would complement a strong educational program by allowing our young people to remain in North Carolina and contribute to its economic growth. Without ample job opportunities, our educational efforts will benefit other states more than our own.

3 Should we put more emphasis on vocational training?

Vocational training offers additional help for those who have completed school or those who have dropped out of school. Certain occupations and trades need people with specialized training. Without this special training, most of our young people will enter the labor force as unskilled workers or farm laborers—areas where there is already a surplus of workers.

Some high schools are already offering programs of study that aid in preparing for a trade. But many high schools are too small to justify these programs. The percentage of high schools in this state offering training in vocational skills, in addition to the required subjects, in 1959-1960 was as follows:

Home Economics	90%
Typewriting	74%
Agriculture	64%
Industrial Arts	17%
Distributive Education	4%
Trades and Industries	4%

Vocational training need not be restricted to public high schools. In addition to 35% of high school graduates in 1960 who entered college, 8½% enrolled in business, trade and nursing schools.

Figure 7. Average Annual Income for Males 45 to 54 Years of Age by Years of School Completed in U. S., 1958.

Less than 8th grade	\$3008
8th grade	\$4337
High school:	
9th to 11th	\$4864
12th grade	\$6295
College:	
1 to 3 years	\$8682
4 years or more	\$12,269

This state has already launched a new program of Industrial Education Centers. These centers are designed to provide skill and technical information to young people entering employment. They also help keep adults abreast with the technological changes in industry.

During the 1960-61 school year, with only 13 of the planned 20 centers in operation, about 19,000 individuals were enrolled. (See Fig. 6.) Although courses vary with the employment opportunities in different areas, the program is generally designed to train machine operators, craftsmen, technicians and supervisors, and to upgrade skills of employed adults.

Other agencies are conducting adult programs in vocational education. Vocational agriculture teachers are aiding farmer training. The work of the Agricultural Extension Service in agri-business and home economics is well known. A number of colleges have special branches for vocational training. For example, North Carolina State College offers a non-degree program for young farmers through its Agricultural Institute, a 2-year program.

Now What?

A choice must be made as to what direction to go in an educational system. You've read about some of the major alternatives that are available. You might even come up with some of your own modified alternatives. Now, discuss these different possibilities.

Do you want to continue on the present basis? Do you want to increase emphasis on formal education? Or do you want to emphasize vocational training? Or want a combination of all or others? Which alternatives

you decide on for your community will depend on your present situation.

Other questions to consider in furthering education are:

1. What changes in school enrollments are expected in your area with the next 10 years? How will your community adjust to these changes?

2. Is there a concerted effort to have students in your community stay in school?

3. Is the public school program in your area providing the necessary background for those who wish to attend college?

4. For those young people who plan to join the labor force immediately after graduating from high school, is your school giving the necessary training?

5. Is there a public commitment for the promotion of increasing educational opportunities in your community?

These are only a few of the questions you might discuss. They may be the ones that fit your particular educational setup. Then again, other questions may pop up that best define your situation. Discuss all of these and see if your community educational system is adequate.

This discussion can be followed-up by a study of local schools and by participating in state and local groups interested in education. A thorough understanding of your local school problems will give you a basis for facing changing needs in your community's educational system.

Your school principal, superintendent and the North Carolina Department of Public Instruction have a wealth of information about the public school system. Colleges in the state appreciate the opportunity to inform citizens of their activities in higher education.

Some of the specified topics which might be studied in detail are:

1. Drop-outs and how students may be encouraged to remain in school.
2. Organization and administration of local schools.
3. Expenditures in local school administrative units compared to other areas.
4. Courses offered in local schools which aid in . . .
 - a. College preparation
 - b. Preparing high school graduates for vocations

This leaflet is one of a series designed for use by informal discussion groups. The subject matter is concerned with economic development of North Carolina. The series of five leaflets include: No. 1. *Why North Carolina Must Grow*. No. 2. *Manpower and Growth*. No. 3. *Education and Growth*. No. 4. *Industry and Growth*. No. 5. *Agriculture and Growth*.

Figures 1, 2 and 3 are adapted from Manpower—Challenge of the 1960's. U. S. Department of Labor.

Prepared by:

Charles R. Pugh, In Charge, Extension
Farm Management and Public Affairs

Arthur Mauch, Visiting Professor,
Agricultural Policy Institute



North Carolina State College of Agriculture and Engineering of the University of North Carolina and the U. S. Department of Agriculture, Cooperating. N. C. Agricultural Extension Service, R. W. Shoffner, Director. State College Station, Raleigh. Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914.
