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Graduate Education in Florida in 1980

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There is always a fascination in trying to look forward a decade into the future. It gives one a great sense of freedom because such predictions are usually forgotten long before the time of possible rebuttal. So I shall range over areas where I can provide no expertness as well as some in which I have long experience.

First it is necessary that one try to picture Florida as it is most likely to be in 1980. It requires no demographic insight to be sure that the population of Florida will exceed eight million and the college population will have increased by more than one-half. But of more importance to this subject is the need to envision the development of graduate programs.

By 1980 there will be eight or nine state universities active in graduate work. All except two will have had a decade or more of experience in the graduate field and two will be fully mature doctoral institutions. The volume of graduate work therefore seems likely to bear about the same proportion to the population as now exists in such states as Illinois, Michigan or California.

The main question concerning graduate work in Florida in 1980 is whether it will have achieved the distinguished reputation of the main state universities in the states mentioned. If it has done so, the space industry will be excellently served in Florida. If only increased volume has been achieved, the space industry will have been poorly served and parts of it will doubtless have located elsewhere in preference to Florida.

How can one measure achievement of distinction in graduate education in Florida in 1980? Primarily, academic distinction must be measured in terms of the reputation of faculties through the achievements of individual professors. How many Nobel prize winners have been associated with Florida institutions? At present one Nobel Laureate has been associated as a teacher and one as a student, respectively, at FSU and the University of Florida. As another measure there seem to be only three members of the American Academy of Science resident at Florida institutions. If the University of Florida alone does not have several Nobel prize winners and a dozen members of the National Academy of Science on its faculty by 1980, the State of Florida and the space industry will not have been served adequately.

It is important to consider the extent to which new technology in communications may have influenced graduate education by 1980. Florida has had one of the most successful experiences in the use of television in graduate education through the Genesys system. Doubtless this system will be extended in engineering and into other fields of education as well. However, the capacity to make available a lecture or class discussion by television does not complete the responsibility of the University. In order to reproduce the educational opportunity of the campus, an extensive library, laboratories and an ongoing research program are needed. Hence, one can see no practical substitute for campus residence of the doctoral graduate student which provides the opportunity for a research apprenticeship under a leader in basic research.

The Board of Regents has made great educational plans for Florida and has also made considerable progress in carrying them out. The plans for a new university in Dade County encompass an eighty million dollar plant to be completed by 1980 along with the employment of a faculty of some 900 academicians supported by over a thousand other employees. This new institution will enroll 16,000 undergraduates and 4,000 graduate students. I have no doubt that this can be accomplished. A new university in Duval County may be developed with nearly equal speed.

There are few if any precedents for such great developments in higher education in either Florida or in the United States. Such precedents as we have do not encourage us to believe that rapid growth and excellence or distinction can go hand in hand. The two institutions in the East that have achieved an early and recent distinction are small and highly research oriented. The fast growing, relatively young and already large institutions of this country can in no case be classified as distinguished or even approaching distinction. An institution of higher education develops much like a person; it goes through a difficult childhood, survives its awkward teens, reaches early manhood at twenty-five and full maturity at fifty. There are few successes from force feeding and none from artificial respiration. The new institution must gain its reputation in the full glare of the academic sun which penetrates every atom of its being.

It can be predicted with assurance that Florida through the next generation must depend upon its presently mature universities for its share of academic distinction, status, prestige, or whatever term one prefers to use for national reputation gained over the years through academic excellence. It is obvious that there are two state universities in Florida that will compete for national recognition, but from here on I will refer only to the one I represent, the University of Florida. Fortunately for the State of Florida it has at Gainesville one of the most widely developed state universities. Here on a single campus there exist side by side not only the liberal arts and sciences, but essentially every professional school of large scale. This occurs on only a few campuses in this country and therefore provides almost unique interdisciplinary opportunities in both education and research.

The question that must be raised is whether the State of Florida fully understands the future potential of what has been achieved in Gainesville, which cannot be achieved at a half-dozen other locations, but which must still be more highly developed if the space science industry and other industries are to be supported and sustained. In 1961 the University of Florida was one of 30 institutions producing 100 doctorates per year. It now produces over 200 and is expanding this high intellectual output rapidly. One might reasonably assume that a larger fraction of the educational tax funds used for higher education in the State of Florida would be directed into this channel in 1969 than in 1961. The opposite is the case. A survey by Dr. M. M. Chambers of Indiana University published in December 1968 shows that the increase in funds from 1961 to 1969 expended at the University of Florida has increased by 82.5 percent while the total state expenditures on higher education in Florida have increased by 278 percent. The increased budget at the University of Florida allowed essentially nothing for excellence, but merely attempted to pay the minimum cost of increased enrollment and inflation. Despite this fact graduate enrollment doubled in this eight-year period while the intellectual level of students increased.

Of course it is recognized that there are necessary expenses to any growing state in meeting the volume needs of higher education. But Florida is one of the few states that has met this need for establishing new institutions rather heavily at the expense of its established universities. My point is that Florida cannot afford to restrict the achievement of distinction at its most mature university in order to meet the volume needs of higher education, but that both developments are essential to a healthy and prosperous growth of our state. If Kentucky and Georgia can increase the budgets of their main state universities by 300 percent

in eight years, it is unrealistic for the State of Florida to have restricted its main state university to an increase of 82.5 percent which was consumed by a 50 percent increase in total enrollment along with inflation. Academic circles are well aware of this difference and are asking questions that are difficult to answer. Recruitment at a level of distinction has become more difficult, and even young scholars question whether Florida is the best place to plan a future career. This question in the academic mind must be resolved, and promptly.

Since I do not feel that Florida has as yet achieved a solution to its problems in higher education, it is incumbent upon me to suggest a coordinated plan. Such a plan should provide every qualified student an opportunity for higher education, it should meet the needs of industry, and it should be feasible under a reasonable but realistic tax base. Because higher education rests upon earlier studies, now designated as K to 12, additional emphasis must be placed there. In particular, we must have a salary scale for public school teachers that competes in the upper quartile of states for recruitment because we are a deficit state in producing teachers. Then the emphasis placed upon the development of junior or community colleges should grow because these institutions can satisfy at reasonable cost the need for higher education within commuting distance of each population center. They can also provide an opportunity for higher education on essentially a universal basis.

When one considers degree granting institutions it is necessary to recognize the impossibility of supplying each community with its own college or university. In addition, the evidence that students will accept street-car colleges as contrasted to residential colleges is inconclusive. The University of South Florida was planned without dormitories, but it soon changed its character. The State would do well to recognize that most degree-seeking students come from the middle class and above. Their parents consider the dormitory charge to be an acceptable part of college education. For students from low-income families a State subsidy, in part grant and in part loan, would be far cheaper than an attempt to provide a new institution within commuting distance of every doorstep to meet the desire or convenience of a fraction of the students. Hence, I am certain that the State of Florida should develop and expand its present and planned universities to whatever size is necessary to meet all future needs without consideration of more than nine campuses. If this requires one or more institutions eventually to expand to 50,000 or more students, so be it. The cost will be less than that of multiple campuses.

The great financial problem develops at the graduate level. Without attempting to establish relative costs one notes frequently the recognition in national publications of the high cost of graduate education. The following quotation from Dr. M. M. Chambers clarifies the point adequately for the present purpose; graduate instruction and research "is many times more costly than at the undergraduate or fifth-year levels." Studies by the writer show that the high cost of graduate education derives from two conditions. (1) Classes at the graduate level are small because nationally there are only about ten percent as many graduate students as undergraduate and fifth year students. Obviously, the way to improve this situation is to concentrate the main group of graduate students on one or two campuses, not to disperse them among nine. (2) Graduate education has a high-cost component because of its relationship to and dependence upon research. Research is so costly that it is not supported adequately by any state, but must be subsidized by the federal government. This subsidy will be made available in sufficient quantity only to well-established, mature institutions that have already achieved or are approaching distinction. Hence, for the critical reasons of class size and research support, graduate work should be concentrated on one or two campuses.

Fortunately, modern communication, of which Genesys is only a first approximation, will provide opportunity for thousands who cannot attend a main state university to take advantage of graduate opportunities of the highest quality. They will thereby increase rather than disperse the student group that a famous professor or perhaps a Nobel Laureate can reach by lecture and discussion. Any less achievement at the main state university will fail to provide the State of Florida, its students, its industry and its businesses with the intellectual leadership needed to stimulate economic growth and promote the general welfare.

A final quotation from Dr. M. M. Chambers provides an overall look into the future of those institutions that may be said to be "on the threshold of greatness." "The big university dubbed 'the city of intellect' with its vast libraries and laboratories, its distinguished professors, its immensely varied cultural opportunities, its atmosphere of discovery, its capabilities for service to the public, is now and in the oncoming decades a unique human creation, for which no substitute exists. On no account will it be allowed to languish." "We shall not gain by spreading out the low-est and pulling down the highest."

In closing I should like to impress my opinion that Florida has already moved farther along the easy road to mediocrity than its best interests would justify. The great industrial states, which Florida expects to emulate, have each had at least one distinguished university. Massachusetts, New York and Illinois have each been fortunate enough to have two great private universities. California is the first state to support two distinguished public universities. Florida should now grasp the financial nettle to make certain that its door to future greatness and prosperity is lubricated by educational distinction. The space industry in Florida has an equally great stake in this achievement.