LEGISLATIVE STUDY COMMISSION ON THE STATUS OF EDUCATION AT THE UNIVERSITY OF NORTH CAROLINA

REPORT TO THE
JOINT LEGISLATIVE EDUCATION OVERSIGHT COMMITTEE

MARCH 1, 1995

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March 1, 1995

TO THE JOINT LEGISLATIVE EDUCATION OVERSIGHT COMMITTEE:

Pursuant to Section 101.5(g) of Chapter 321 of the 1993 Session Laws, as amended by Section 60 of Chapter 24 of the 1993 Session Laws, 1994 Extra Session, the Legislative Study Commission on the Status of Education at The University of North Carolina hereby submits its report of recommendations and findings to the Joint Legislative Education Oversight Committee.

Respectfully submitted,

Senator David W. Hoyle
Co-Chair

Representative Robert Grady
Co-Chair

LEGISLATIVE STUDY COMMISSION ON THE STATUS OF EDUCATION
AT THE UNIVERSITY OF NORTH CAROLINA

TABLE OF CONTENTS

HISTORY OF COMMISSION

The 1993 General Assembly created the Legislative Study Commission on the Status of Education at The University of North Carolina to study three general issues: (1) undergraduate education at The University of North Carolina; (ii) university funding issues; and (iii) university quality of education issues. (See Appendix A) The Commission was directed to report to the Joint Legislative Education Oversight Committee by March 1, 1995, at which time the Commission terminates.

The Commission met nine times. In addition, the Commission contracted with the National Center for Higher Education Management Systems (NCHEMS) for professional research, consultative, and other services. As part of its work with the Commission, NCHEMS prepared a background paper to provide a brief overview of objectives and policies related to improvements in the quality of undergraduate education. This paper is attached as Appendix W. Lists of those attending the meetings, as well as complete minutes of the meetings, are contained in the Commission's records on file in the Legislative Library. A list of the members of the Commission are found in Appendix B.

COMMISSION PROCEEDINGS

First Meeting -- January 21, 1994

UNC Governance Review
John L. Sanders, Former Director, Institute of Government

Mr. Sanders explained the structure and development of the University of North Carolina System. He said that the University is organized and is expected to operate as a system, and yet, none of its components were originally created to be part of a system. There are now 16 degree-granting institutions in the University, a teaching hospital, a University television system, a school of science and math, a special purpose preparatory school, and a number of other activities that are under the general oversight of the Board of Governors. Each of them was created to serve a particular purpose that the General Assembly felt was important at that time. Some were established from the beginning to serve a statewide constituency and a general educational role: UNC at Chapel Hill in 1789; later, UNC at Greensboro in about 1891; and sometime later, North Carolina Central University with a somewhat similar mission. Two special-purpose technological institutions, NCSU at Raleigh and A&T University at Greensboro, were established as land-grant institutions to specialize in engineering, agriculture and related technological fields to serve the entire state.

Most of the institutions were originally teachers' colleges, at least in their collegiate role. As the state developed a public school system in the late nineteenth and twentieth centuries, there was a severe need for school teachers. At that time there was no thought of preparing school teachers as formally as we do now, but at least they needed some teaching instruction, as well as knowledge of the subject matter they were to teach. Mr. Sanders said that Normal schools were established under state sponsorship to provide that training. These include East Carolina, Elizabeth City State, Fayetteville State, Western Carolina and Appalachian State. Those institutions, over time, broadened their programs to become general purpose colleges, but their roots were in teacher-training roles, which were largely local in purpose.

Another set of institutions, Asheville, Charlotte, and Wilmington, were created originally to serve, not as residential colleges, but on a day-basis, people who lived in those community areas. There is one specialized school, the School of the Arts, which was formed in 1963 and has always had a state-wide and even a region-wide mission.

Five institutions were created originally to serve black students only, one to serve Indians only, and the remaining nine to serve whites only. The School of the Arts never had any kind of racial designation as a part of its commission. The location of these institutions responded to their purpose. If they were intended to serve essentially a local service territory or group, they were located with that in mind and, therefore, when they became a part of a larger system, they may be perceived to be oddly located to serve a statewide mission.

Until 1931, each institution was created by the General Assembly or adopted from a previously private status by the General Assembly, given a Board of Trustees and a president, and a direct line of communication to the Governor and the General Assembly for appropriations and other purposes. In 1931, The University of North Carolina was consolidated into three campuses, primarily as an economy measure.

North Carolina State College, the University of Chapel Hill, and what we know today as the University of Greensboro, made up the consolidated University. Their combined budget, plus that of the cooperative agricultural extension service, in 1930-31 was just under two million dollars. That was a staggering sum in those days. The total state General Fund budget probably didn't exceed 20 million dollars. Governor Gardner and others were concerned that there was duplication of programs occurring that could be eliminated to the advantage of the state's budget and to the better provision of effective teaching for the students in the University. So at his urging, the General Assembly of 1931 merged those three institutions, which previously had been legally separate, into one under one Board of Governors, under one Board of Trustees, and under one president. The result was that three years later in 1933-34, the combined General Fund appropriation for the three-campus university and the cooperative agricultural extension service was $832,000, only about 35% of what it had been three years before. That was not due to the economy achieved by consolidation, but rather the great depression. It was not until the mid-1940s before the General Fund appropriation for higher education in North Carolina got back to where it had been in the late 1920s in current dollars. That is evidence of the depth of the depression into which North Carolina and the nation as a whole went.

By the late 1930s, NC State focused on agricultural, engineering, design, textiles, and other technological subjects; Chapel Hill concentrated more on the arts and the sciences and some of the professional schools were based on the arts and sciences programs; and Greensboro was an undergraduate college for women with very little graduate work. And so it continued for several years. The Board of Governors, consisting of one hundred members, was elected by the General Assembly. The Board, in turn, elected the president.

With World War II and the growth in funds available for higher education for the state and federally through the GI Bill, there was a vast increase in enrollment in the institutions of higher education. By 1955, the state was maintaining the three-campus university and nine separate colleges, each with its own board of trustees. The General Assembly created a Commission, and in 1955 it recommended that the General Assembly establish the Board of Higher Education as a planning and coordinating body for degree-granting institutions of higher education in the State. That Board had a somewhat irregular history of ups and downs and it was never fully credited by the General Assembly as the spokesman for higher education. Its powers were adjusted from time to time. In 1961-62, Governor Sanford created The Commission on Education Beyond High School, known as the Carlyle Commission for its chair, Irvine Carlyle of Winston-Salem, which came in with a set of recommendations, which the Governor and the 1963 General Assembly endorsed, calling for better order in the public higher education sector. One of the things it created, and of the most lasting importance, is the Community College System, which in its present form dates from 1963 with basic state underwriting of the program and local provision of most facilities for the institutions. That Commission also spoke to the degree-granting institutions of higher education clarifying the rule of the University and providing for the expansion of the University to additional campuses where the Board of Trustees, subject to legislative approval, found appropriate.

Pursuant to that authority, the Board and the General Assembly added the campuses in Charlotte in 1965 and at Asheville and Wilmington in 1969 to make the University a six campus structure, instead of its original three campus form. There were also some recommendations with respect to the regional colleges throughout the state. These were to occupy a role distinctly different from that of the University and its campuses with the University having exclusive control, for example, of the doctoral degree and post graduate training.

During the 1960s, the General Assembly took an increasingly active interest in higher education. The move for a medical school, as it ultimately became at East Carolina, got its start through legislative initiative. In 1967 and 1969, the State redesignated nine colleges, as they then were, as universities, and granted them all the authority to give the doctoral degree at the approval of the Board of Higher Education. In a number of other instances, the Legislature interested itself in intimate ways in the operation of the University.

The institutions were growing, but the 1950s, 1960s, and 1970s were an era of rapid growth in institution enrollment and in the financial provision made for them by the General Assembly. Governor Scott concluded, in about 1970, that fundamental reordering, reorganization, and restructuring of public higher education was essential. This led to a study commission, which made a recommendation to the Governor, and he to the General Assembly in 1971, for a substantial reorganization of higher education. The General Assembly did not like the plan, was not ready for the plan he proposed at that time, so the matter was put over to a special session in the fall of 1971. For a week in October of 1971, the General Assembly addressed the subject of higher education solely. Out of that session, which was a very traumatic experience for members and others, came the present structure of the Board of Governors and the University as we know it. That called essentially for the merger of the ten institutions, which had previously been separate, into the University structure so that it became a 16-campus university. The Board of Trustees of the old university was transformed in name and in form, but not in legal being, into the Board of Governors. The number, which was reduced from 100 to 32, continued to be elected by the General Assembly as the old Board of Trustees had been.

The initial structure of the Board of Governors consisted of 16 members chosen by or from the old 100 member University Board and 16 members chosen by or from the Boards of Trustees that previously had been separate. They were given staggered terms expiring over as much as seven years so that there was continuity in the early years of the formation of the University under the 16-campus scheme. This helped to provide stability, continuity and familiarity with the several institutions of the State.

There was also continuity in administrative leadership. Mr. Friday, who had been president of the six campus University for many years, was elected as president of the new 16-campus structure. He continued in that role until 1986.

Fortunately, the period of the 70s, when the new structure was going into place, was a period of relatively good times financially, so no institution could say that it had lost money by virtue of restructuring. Many of them got more than they would have gotten otherwise, so it turned out to be a relatively satisfactory experience for most of them.

One feature of the new system was that each of the institutions had its own board of trustees, eight chosen by the Board of Governors, four chosen by the Governor, and one student body president as an ex-officio member. That was the uniform structure for all of them. This meant that the six campuses composing the old university had their own board of trustees for the first time. One of the first things that the Board of Governors did when it took office in 1971 was to adopt a code which sorted out a delegation of duties and responsibilities between the Board of Governors and the 16 boards of trustees. There was uniform delegation to all 16 with authority over such matters as student admissions, student performance standards, graduation standards, most personnel matters except for the top-level administrative people and the granting of tenure to retirement to faculty members. All the rest was handled at the local level by the local board of trustees. Such matters as athletics, student affairs of all kinds, services, the physical planning of the campus, responsibility for management of the campus facilities, and other services for the institutions were delegated to the local boards of trustees and to their chancellors. The Board of Governors retained for itself only those powers that were essential to its general oversight and management responsibility: budget powers, the planning of programs, the determination of what programs, degrees and so on each institution could carry out, the power to set enrollment levels, the power to choose top administrative people, the president, the chancellors, and their principal staff people.

The staff structure at the general administration level is a President who is the chief executive officer of the whole structure, whose powers under statute and the code of the Board of Governors are very extensive. He is supported by seven vice-presidents of various specialty areas: finance, academic affairs, research, and so on. The staff that is based in Chapel Hill can carry out the support duties for the Board of Governors and for the President.

At each institution, there is a chancellor who is elected by the Board of Governors upon nomination of the President and who serves at the pleasure of the Board of Governors. The local board of trustees nominates a chancellor to the President, but that local board has no power to remove a chancellor, however much they may be displeased. They can complain to the Board of Governors or to the President, but that is as far as their authority goes. At each campus, there are officers who report to the chancellor, generally designated vice-chancellors with details and specifics of their particular areas. There also are assorted deans to direct various activities at the institution.

The governance structure for other institutions under the Board of Governors that are not included in the 16 campuses that make up the University, in particular, the Math and Science School, the School of the Arts, the North Carolina Center for Advancement of Teaching, the Principals Executive Program, and the Arboretum, varies for each institution. Among the most extensive is the North Carolina Hospitals at Chapel Hill. It has its own Board of Directors who are chosen in a combination of ways, some by the Board of Governors, some serve ex-officio positions, but it reports to the president and not to the Chancellor at Chapel Hill. The School of Math and Science and NCCAT at Western Carolina each has a Board of some kind. The Highway Research Center, which was established in 1965, reports to the President, but for administrative purposes is lodged at the University at Chapel Hill.

When ECU was still a legally separate college with its own board of trustees, there was a movement that lasted over a period of several years before the final decision was made to create a four-year medical school. By the time that decision was in place, the Board of Governors was in place and assumed the responsibility of the school. It started out as a one-year program and then a two-year program. There were also accreditation problems. Finally, in the early 1970s, it was clear that the General Assembly was determined that there would be a medical school of some kind in Greenville and that it would be a fully accredited, first-rate medical school.

Mr. Sanders said there had been no effort to standardize admission requirements and curricula at some basic level, so that, for instance, if a student took English 101 at ECU, it would be the same course content and knowledge as if at Chapel Hill or NCSU because this is a matter to be determined by the local board of trustees or the chancellor. He went on to say that there are two instances where there is standardization. One is that all institutions are required to administer the SAT to all incoming students, and the other, since about the mid eighties, is that everyone coming to any of the 16 campuses must have a certain set of high school units.

In response to a question concerning whether there is any evaluation to minimize unnecessary or obsolete doctoral programs, Mr. Sanders said this was controlled in two ways. There is periodic review of programs in a particular category, such as science, chemistry, or health professionals university-wide, and the institutions that offer those doctorals, are examined to see that they are qualitatively up to the standards that they ought to be meeting. Efforts are made to improve them if they are not. Secondly, when there is a proposal for a new program, first the institution comes to the Board of Governors. At that point the institution must demonstrate why it feels this program is needed and what the capacities of that institution are to offer this. The Board must authorize the plan. The institution then develops the plan and brings it back to the Board for final approval. In the same way, the institution or administration can propose the discontinuation of a program if it tends to be obsolete or it no longer serves a necessary purpose, or if there are too many programs in that category.

The federal concern for the enforcement of desegregation began about 1970, just before the restructuring, but the federal officials, then with the Department of Health, Education and Welfare, did not get vigorous about reinforcement of the policy until after the reorganization in 1971-72. By the time the University had to make some serious efforts to change the racial compositions at the institutions, it did have one board in charge in a way that had not existed in 1972. From that time forward, the Board of Governors has dealt with racial desegregation in institutions of the University.

In response to a question, Mr. Sanders said that in a Mississippi case, which was decided about a year ago, there was a challenge to the eight-campus state university system. In the state university system maintained by the state of Mississippi, three of those institutions were traditionally black and five were traditionally white. The Supreme Court by a 5-4 majority, found that system constitutionally deficient on several grounds. There were different admissions standards to the various institutions which could be traced back to racial purpose origins. There were different classifications of the institutions, doctoral institutions and so on, which also seemed to parallel the old racial structure. The Court said that the state wouldn't have created eight institutions except for the old system of desegregation; and therefore, the very existence of eight institutions has to be justified by the state of Mississippi or something else must be done about it. What the "or else" is or what level of proof the state will have to provide to justify its maintenance of eight institutions in Mississippi is not clear. That is the first time the Court has raised the question of the very existence of a number of institutions being a constitutional defect in the higher education system of a state that has a tradition of legal segregation.

One of the frustrations for the University system in trying to respond to the federal mandate was how to eliminate the vestiges of the segregated system, the chief evidence of which were student bodies which were 80-90% one race or the other, and at the same time, preserve, protect, enhance and defend the traditionally black institutions, largely in their role of serving black students. Neither the federal agencies nor the federal courts ever confronted the convergence between those two roles.

Mission statements start out with a proposal from the campuses, from their boards of trustees, but they must ultimately be adopted, with such modifications as the Board sees fit, by the Board of Governors.

Overview of UNC Fiscal Information
Jim Newlin, Commission Fiscal Analyst

Mr. Newlin reported that there has been a steady decline in high school graduates since 1989, but this trend should bottom out this year. (See Appendix D - High School graduation and public undergraduate and graduate enrollment trends 1983-1993.) There are five campuses that are more than 2% below their projected enrollment: Pembroke, UNC-A, UNC-C, UNC-G and Western Carolina. Dr. Carroll commented that one factor in this decline was changes in the federal policies with regard to financial aid.

Mr. Newlin added that enrollment increase money is based on projected enrollment. He said decisions are already made about admissions when the General Assembly makes enrollment increases available the Summer after projected enrollments are made in the Spring. He also observed that, this year, the enrollment report reflected that several UNC institutions exceeded the 18% limit of out-of-state enrollment of the freshmen.

He said that with undergraduate education now taking five years or so, the decline tends to accelerate. If there are four successive classes of smaller groups, then finally after four or five years it really does affect the enrollment. He said this is pure demographics. There is enrollment growth, just less than budget; but still higher than it was the previous year.

There was discussion concerning FTES. Depending upon the number of hours students take, one can get more or less students in under the same FTE. That is something that is not controlled by the system. The General Assembly funds a full-time FTE for 12 hours. If professors teach for 15 hours, they get nothing more. Mr. Newlin added that legislation has been passed to make the average load 15 hours. He noted that the numbers there reflect that there are between 13,000 and 18,000 additional students or FTEs.

Appropriations per school vary. The average amount per student for the School of The Arts is $15,000, for UNC-CH Health Affairs is $25,500, for ASU, ECU, UNC-C and UNC-W is above $7,000, for UNC-CH AA is a little over $10,000, for NCSU is around $8,500, and for Elizabeth City State is in the same range. There are two reasons for the differences. One, there is a certain amount of money needed to operate a school. Elizabeth City has a significant amount of Scholarship funding that drives its costs up. Winston-Salem State is also a high one because it is a small campus.

The budget is historically based. If one looks at 1971 there were some changes and improvements that the consent degree brought about. The Board of Governors brought about some equalization in salaries among different levels of campuses. The amount of money each campus had when started also is a major consideration.

If two campuses are getting additional students, say UNC-CH and Pembroke, Chapel Hill is going to get more funding than Pembroke, because it is, in effect, an average-budgeting system. It won't matter whether those students are all freshmen or all graduate students because growth is not measured by whether it's in the undergraduate or graduate sector.

This year was the first year that per student funding significantly exceeded inflation since 1987-88. Mr. Newlin said that North Carolina has done very well compared to other states, especially dealing with other public systems.

Mr. Newlin explained that the cost per student has increased by $671 (including tuition and receipts) since 1987-88. This reflects that the state's buying power has been reduced by 11% since 1987-88; however, it is an improvement of 1.5% over 1992-93. He said that two separate actions by the General Assembly, in 1991, gave additional operating authority to the individual institutions in management flexibility to try to help them through this period of time.

Mr. Newlin said that North Carolina actually retains more of its students in the State system, that we "import more than we export." (See Appendix E - Geographic Origins of Undergraduates by Sector in Fall 1993.) The proportion of out-of-state students in the System is about 14%. The only direct policy that the Board stated in the last ten years was to set a limit that no more than 18% of entering freshmen on any campus are supposed to come from out-of-state. This Fall, seven schools exceeded that limit by some amount. When one looks at the graduate level, the percentages are much higher. Competition for these students is higher because private colleges or out-of-state colleges may be offering better scholarships to keep their enrollment up.

Mr. Newlin pointed out that, in 1973-74, in-state students were paying right at 13% of instructional and general costs. That had declined by 1988-89 down to 7.3% and during the budget crises of 1991-92, tuition increased from 7.3% to 11%.

Mr. Newlin added that for all of the United States the average proportion of tuition and fees is right at 31%. In North Carolina it is less than 20%. North Carolina ranked 43rd among the 50 states in the proportion of those overall requirements paid for tuition receipts. Mr. Newlin said this was for in-state and out-of-state. He said that North Carolina was high from the point of out-of-state tuition as compared to other states.

The number of N.C. high school graduates applying to UNC in 1990 and 1991, statewide from the public high schools, declined in 1991 over 1990. The percentage of students applying is up for all white students, but down for African-Americans and Native Americans. Percentages reflect racial differences in the proportion of students that apply to UNC. The proportion of minority students, particularly males, that apply to more than one school is significantly less than the proportion of whites that apply to more than one school. If a student applies to more than one school, his chance for admission goes up about 20%. Data also showed enrollments for Whites, African-American went up, American Indians went down during these two years.

There is a correspondence between SAT scores and retention or return rates. 81.5% of all freshmen came back this Fall. Also, five-year and six-year graduation rates are up. The percentage of freshmen graduating in four years was approximately the same from 1981-1989, but both fifth year and sixth year graduation rates for whites are up. However, the same rates for African-American students are lower.

The four-year graduation rate for these students is 19%. For the class entering in 1989 for all students, 29% had graduated after four years from the same campus. From all UNC campuses, 30% had graduated. Persistence rates reflect that 70% either graduated or were still enrolled. Thirty percent, four years later, were not on a UNC campus. Mr. Newlin reiterated that this information is only for entering freshmen undergraduates.

Second Meeting -- April 26, 1994

Message from the President C.D. Spangler

President Spangler reported that the latest long-range plan of the Board of Governors shows that during the 1980's, real per capita income in North Carolina grew 28% compared to a national average of 18%. The long-range data show that the median income of men with a college degree was 62% greater than men with only a high school education. The corresponding figure for women was 91% higher for college educated women.

The University's reputation, throughout history, has been based on its undergraduate activities. Any examination of this educational program will show how the students are involved and positively affected by the research, also.

In recent years, the system has had to cut back on library activity and has suffered as a result. President Spangler stated that overall, however, they are ahead of the game nationally on sharing library resources electronically since the General Assembly has given strong support to this effort. This library network serves not only the universities, but also the community colleges, the people of this state, and the public libraries.

In the next decade, the number of high school graduates will increase by 16%. President Spangler continued his report by saying they are seeing an increase in the percentage who have chosen UNC institutions. These come with better academic credentials than ever before. It is his theory, with all the concerns raised by many regarding the public schools, that there are basically two groups of people coming from public schools: one group with a tremendous education (25% of those coming from public schools go to one of the 16 campuses); the other group doesn't get what they should have.

In conclusion, President Spangler thanked the General Assembly for the interest and support given to the University. He thanked the General Assembly for the budget flexibility given,which he asked to be continued. And he thanked the General Assembly for the $310 million approved in the bond issues and also for the renovation fund.

One member asked what the University's role is in improving the training of the teachers who work in public schools, affecting the quality of education that students get. President Spangler responded that it is not a public school problem; it is an education problem. He said it all fits together -- not as well as it should -- but it all fits together (mentioning the role of community colleges as well as public schools).

Another question related to the University's efforts to extend its programs outside the immediate area of the 16 university campuses, its work with nontraditional students, and limiting course requirements so that students can complete their degrees in four years. President Spangler replied it is not easy to transfer courses from community colleges to the universities. After President Spangler's response that the standards are not the same with all the community colleges and, therefore, not accepted at all colleges, one member asked if he saw any improvements in this direction. A lot of our people are going to community colleges; if they go for two years and cannot transfer their courses, this is wasted. The effort to fix this problem must come at the University level.

President Spangler responded that the legislature does not want to begin setting standards for specific courses, and that there is little central control among the 58 community colleges. The committee suggested that the Board of Governors needs to look at the problem of articulation and make recommendations on how to solve the problem to this committee. The Board needs to take the lead in setting the standards of what will be approved.

Because of the tension between research and teaching, President Spangler was asked how more emphasis can be put on teaching without negatively affecting the reputation of the two research institutions? Because the reputation is so good in the performance of research, we get more than $400 million per year from the federal government, stated President Spangler. He does not see the conflict for having a good research professor and having good undergraduate teaching.

Another member asked President Spangler if the long-range planning addresses the issue of students who take more than four years to complete what should be a four-year college degree. It would be beneficial to have the curriculum, counselors, etc., set up in such a way that students can get out in four years if they have the academic ability.

Dr. Little answered that this concern with four-year graduation has been an area of concern with the Board of Governors and the University system. They are exchanging ideas on how to attack this problem. They have asked that the completion of a baccalaureate degree be limited to 128 hours unless a specific degree gets an exception from the Board of Governors...a pharmacy degree, for example.

One member said there is a glitch in our funding system that perhaps doesn't create the incentive to get a student out in four years. This is that we fund a full-time equivalent position at 12 hours. The effect is that for every student taking 15 hours, the University gets funding for 12 hours. The University gets the same funding, whether 12 or 15 hours. This should be looked at so that the incentive would be for a student to take 15 hours.

Another member asked how catch-up for past discrimination at the five HBC's and Pembroke fits into the long-range plan. President Spangler replied that remarkable improvements have been made with facilities, quality of professors and quality of students.

President Spangler was asked about the report by U.S. News & World Report regarding the annual listing of the perceived quality of the universities across the nation. Over the last few years, some of our campuses have gone down in their rankings. President Spangler said they developed this because it sells magazines. Any one of our campuses has many areas which can be judged. He said it was impossible to judge these universities accurately.

University Mission
Dr. Roy Carroll, UNC Vice-President

The general overall mission of The University, as adopted by the Board of Governors, says that teaching is the primary responsibility of each of the UNC institutions. The Board has, by statute, the responsibility "to determine the functions and the educational activities and academic programs of each institution." Each one of these 16 institutions is diverse, each representing a substantial investment in place. Each has its own traditions and own faculty, library, etc. This diversity is important. The Board has approved statements of identification that distinguish one campus from another.

The Board identifies eight interrelated strategic directions and outlines specific strategies which the Board has chosen to pursue during this planning period. For example, one direction pertains to having stronger linkages between the University and other educational sectors to improve quality of education. Dr. Carroll forcefully emphasized that the missions are different for each of the 16 institutions and should be that way.

The Board adopted a classification scheme (for each institution), which was used until 1980 when the Board adopted a classification system developed by the Carnegie Counsel on Policy Studies on Higher Education. This is still used for all federal reporting requirements and all national studies and analysis. This system does not rank institutions. It is simply a descriptive classification of what they are. When asked whether it was true that most campuses aspire to a higher classification and, if so, are they losing sight of their mission, Dr. Carroll confirmed that most campuses aspire to a higher classification. Most of the institutions want to modify and change some of their emphasis.

Dr. Carroll concluded that there is a great deal of evidence that the institutions are conscientiously using the flexibility to shift and redirect funds to things that are directly related to their instructional program, particularly undergraduates.

Rewards and Incentives for Quality Undergraduate Teaching
Dr. William P. Little, UNC Vice-President

Dr. Little referred to a report, which was approved in September, 1993. The general finding of this report is that tenure can be revoked on specified grounds, including incompetence, neglect of duties, serious misconduct. By and large, the tenure policies and procedures are sound.

Because of the wide diversity of disciplines and standards for which performance is judged -- especially at a large university -- the detailed criteria for tenure are often found at the departmental levels. These will vary, and rightly so, according to the institutional mission. Each institution is subject to the Board of Governors' declaration that teaching is a primary obligation at all of our institutions, particularly at the undergraduate level.

Dr. Little stated that the central question is whether sufficient consideration is given to the quality of teaching when tenure decisions are made. Student evaluation is extremely important. The system is not flawless, but when thousands of decisions are made each year and only a handful are appealed, the system works well. Peer evaluation is important, also, but not as important as student evaluation. Evaluation is continued after receiving tenure, but peer evaluation is mostly for the nontenured, probationary faculty member. Faculty development more and more applies to activities that enhance the teaching ability of the faculty member. There are centers that hold seminars on teaching techniques.

One area of concern to the committee and the Board was the training of graduate assistants to teach in a classroom setting. Recent changes have been made in the Southern Association of Colleges and Schools in that a published set of guidelines must be set up for graduate assistantship administration.

The Board of Governors approved four recommendations to enhance teaching. One of the recommendations, The Board of Governors Award For Excellence In Teaching -- will be given out for the first time next spring -- to one recipient from each institution. These awards will have a cash value of $7500 each. Another recommendation is that greater efforts would be made to develop and strengthen the teaching skills of graduate teaching assistants and that the President prepare, in consultation with the University-wide graduate council, specific guidelines and recommendations for the training, monitoring and evaluation of graduate students who teach courses at UNC institutions.

Dr. Little told of a survey that was conducted with a 72% response. The results were that for all UNC institutions, 94.4% of the respondents ranked the instruction they received as satisfactory or better (he mentioned that one of the research universities had the highest score).

In another survey conducted by the North Carolina Center for Public Policy Research, 720 department heads, deans and chief academic officers were surveyed with a 78% response. On a scale of 1-7, the quality of teaching ranked 6.5 overall for the university. At the two research universities and the doctoral university, the figure was 6.3 on a scale of 7; 6.5 at comprehensive one's and 6.6 at comprehensive two's. The quality of research ranked overall at 5.7; 6.6 at research and doctoral institutions; 5.6 and 5.1 for comprehensive. Dr. Little concluded that these data suggest that teaching is good and taken seriously at the institutions.

One member asked, since it appears there is an elaborate method for evaluating teaching, if there is an equally elaborate method for evaluating research. Dr. Little said there are a lot of measures such as the ability to compete nationally and the ability to publish research results in journals. It is much easier to measure research accomplishments.

In response to another question asking if each campus set a percentage of the faculty they will allow to be tenured (can it be 100%?), Dr. Little said it could be 100% -- there are no quotas. If it's 100%, there are problems. Dr. Little said that roughly 65% of the faculty are tenured.

Dr. Little also noted that research was ranked ahead of teaching by the people who recommend promotions. When asked what is being done to correct the fact that research has a higher ranking, Dr. Carroll said that was why the Board stated that teaching was to be the primary obligation. Members observed they aren't convinced that at the two institutions mentioned previously, the emphasis is on research.

Third Meeting -- September 21, 1994
"Quality Through Different Lenses"

Media's View of Quality in Higher Education
Dr. Jim Watts, Education Specialist for the Commission

There are a variety of perspectives on quality in higher education, but that information that comes to public is very limited. As examples, he distributed copies of articles from "US News & World Report", "Money", and "The Charlotte Observer" to give an indication of how local media treat the ranking of universities.

The "US News" bases its criteria primarily on reputation with some compiled through survey polling. Since implementation of ranking eight years ago, however, "US News" has developed other criteria.

North Carolina institutions are included in some of the rankings. US News-America's best colleges Regional in the South places Appalachian State at ninth ranking, UNC-Charlotte at 13th ranking, UNC-Wilmington in 14th ranking. But in the category of "Best National Universities," North Carolina has none ranked in the top 25.

On the last page of "Money's" article, under Top Public Schools ranked by in-state tuition, UNC-Chapel Hill ranks number one. Dr. Watts said that tuition is an important value in that magazine's ranking.

There are inherent problems with these rankings. They are very general, but satisfy the public thirst for information. The members were reminded that UNC President Spangler had said he didn't put a lot of credibility into these rankings.

Measuring Institutional Effectiveness
Dr. Roy Carroll, UNC Vice-President

Dr. Carroll stated that he believes the exercise of assessment of quality is extremely important to the University. The University has a comprehensive process of evaluating a very wide range of things by multiple indicators and multiple measures.

Dr. Carroll said many students, some 94-96%, indicated that they were very satisfied with what they learn at the University. In measuring quality, the University does course examinations through all sorts of devices, has annual reviews and evaluation reports. Also, academic programs are subject to specialized accreditation by a number of bodies. This accreditation is encouraged by the University.

He said, with regard to teaching, they have never had an institution ranked relatively low, but they have received low rankings in areas such as advising.

Quality from the Chancellors' Perspectives
Ms. Robin Johnson, Commission Counsel

In August, the Co-Chairs sent letters to all the Chancellors and Vice Chancellors of Academic Affairs at all institutions. They were asked to review their institution's annual reports to determine if what they did was the best way to assess quality. Ms. Johnson gave a brief summary of their response.

The letters were unanimous in their support of the annual assessment reports and their ability to reflect quality at the institutions. She sensed that the level of satisfaction varied and depended on how well they fared in the reports. The measures of assessment which appeared most frequently were measures related to the library usage, multimedia technology used in instruction, student and faculty access to computers and technology used by the sciences, and measures related to an institution's financial trends over time.

One of the letters suggested looking at students across the UNC system according to race, gender, socioeconomic status, location of origin and looking at transfer students, graduates by discipline and grade distribution listing the degrees that are awarded. Another suggested measuring the level of productivity via the percentage of students graduating with distinction. Availability of resources to support faculty development; graduates' surveys to reflect experience of graduates after graduation and their evaluation of their educational experience also were suggested.

Other suggestions included: add age categories of full-time faculty; for institutions awarding graduate degrees, give the number and percent of graduate teaching assistants; include a component that denotes resources and a resulting productivity as directly associated with progress towards an institution's mission; add a provision on the effect of overhead receipts being returned to the state; report how public and community services tie in with the academic programs and missions of institutions; and measuring the impact of funding levels on the ability of institutions to address problems that may impact their missions.

The letters from Elizabeth City State, A&T State, North Carolina Central, the School of the Arts, Pembroke State and UNC-G all warned against using one measure to measure all of them against each other. Instead, they emphasized the need for multiple measures that reflect each institution's mission. As William Pruitt, Vice Chancellor for the School of the Arts expressed, "The primary use of the assessment measures should be as indicators of the extent to which the institution is fulfilling its unique mission rather than as a means to construct artificial scales of comparability between essentially dissimilar entities."

Finally, most of the letters reflected a great deal of thought. Chancellor Hackley of Fayetteville State said, "One aspect that is not clearly assessed nor linked to the quality of the constituent campuses is the effort to 'backward map.'" This strategy reflects the changes we want to achieve in what graduates know and can do at the end of the college experience and includes the vital collaboration and coordination with the public schools and the community, as well as with those employers of our products. Institutions have to ensure a seamless learning experience through the education pipeline, kindergarten through college graduation and the professional career; with information from the latter being used to change instruction and assessment from college down into 12th grade-kindergarten.

In 1993, there were almost 1,500 students (1,023 Black, 10% of total Black applicants; 455 White, 1.5% of total White applicants; and other) who graduated from North Carolina high schools and applied to one of the campuses of the UNC system; however, they were not acceptable due to their not meeting the Minimum Admissions Requirements (MAR). It is important to note that each of these students carefully completed an application, paid the admissions fees, and in some cases, even visited the campuses for orientation. It is our supposition that there should have been appropriate guidance and intervention throughout these students' schooling to ensure that they were completing successfully the appropriate coursework to be eligible for acceptance. We are interested in monitoring closely the progress of these students and following up with them to determine whether or not they are on track to continue their academic pursuits. FSU, as part of its plans, contacts these students individually to see if we can provide assistance and motivation so that they can persist in educational endeavors. Each UNC institution has a special responsibility to be involved directly in the communities served and to pilot and coordinate the linkage in the educational opportunities of its region."

He went on to talk about SAT averages and how these are frequently used to demonstrate the quality of a campus; however, the scores really only represent which students were admitted to the universities and the degree of predicted success levels for those students. "We should develop for higher education a matrix which places students in categories by SAT, High School GPA and class rank. This will allow each student's performance to be compared against students with similar beginning abilities within each institution. More importantly, it will allow an institution and others to determine how well each institution does with similarly prepared students over the years. At the state level, such a matrix will allow institutions to be compared with respect to their success with similarly prepared students, rather than as is done currently by comparing institutions whose freshmen classes may vary by as much as 400 to 500 points on the SAT. With the matrix, each institution would be judged by how well it does with students whose beginning abilities fall into the same category. We would be able to determine also the institutions' expected performance and how well each does against that expectation."

Dr. Carroll replied that the purpose of the annual assessment report is not to compare institutions, because each individual institution draws up its own plan to measure it, the success of its students, its plans, and its goals. On the common measures, people look at the reports and make such comparisons, but the University doesn't make those kinds of comparisons of dissimilar groups.

Dr. Carroll said, for instance, if SAT scores and graduation rates for all 16 institutions were presented, the University would not say that because the graduation rate is lower at one, then that institution is doing a poorer job. But inevitably, people are drawn to make those kinds of comparisons even though they are not valid.

When asked if they could put something in their assessments to do what Dr. Hackley is saying, that is, to compare apples to apples, Dr. Carroll said that he thought they could. He thought Dr. Hackley was asking that his graduation rate not be compared to the graduation rate at Chapel Hill. He said the University doesn't do that.

One member retorted that perhaps Chancellor Hackley was saying, "How well do our students based on their skills do as an incoming class, compared to another school with those same students?" That is a better way of telling how schools achieve. Another member said there seemed to be something more basic: that the institutions shouldn't be compared to one another at all. They are not in competition with each other.

Dr. Carroll replied that he felt Chancellor Hackley was saying that the outputs depend in part on the inputs. One would not, for example, come to the conclusion that UNC-A has a disappointingly low graduation rate compared to another institution that has a traditional student body all of which is resident on the campus, when you have a nontraditional student body with most commuting. One must recognize that there are other variables.

Another member suggested that it is more important that the assessment lend itself to comparing a campus with itself year after year to see if that campus making progress. In that way, one will be always comparing "apples to apples." Dr. Carroll answered that the University does this, looks at its record over time to compare.

The General Assembly doesn't use much data. Everybody is trying to rank according to SAT scores and high class rankings. If we continue in that direction, many underprivileged students may not get to go to college. If more of this data were filtered in with other data, perhaps we could create another way to measure whether an institution is successful. Ms. Johnson suggested that it might be helpful for members to read point number one in Chancellor Woodward's letter.

States' Roles in Setting Quality Standards in Higher Education
Charlie Lenth, Policy Director for Higher Education
Education Commission of the States
Dennis Jones, President, and Peter Ewell, Senior Associate
National Center for Higher Education Management Systems

Mr. Lenth presented an overview of the Education Commission of the States (ECS). North Carolina was a founding member of the Commission in the 1960s, and all states except Montana are now members. ECS's agenda tends to be dominated by K-12 issues and brings some of that systemic framework in working with higher education, but it is attempting to link K-12 education to make sure efforts are consistent with a framework within higher education. Part has to do with an increased emphasis on lifetime learning and people entering in and out of education throughout their lifetime.

He said the Commission regularly looks at the governance structures across the United States. There is a fundamental issue of what we communicate in higher education with respect to what we are providing. How do we evaluate the quality in "our" terms rather than in the terms of the consumers? Mr. Lenth said that when looking across the nation, it is very clear that we must rethink and maintain commitment to access, at least in high-growth states.

Secondly, we are dealing with a situation of dramatically changing public expectations with regard to student performances and performances of colleges and universities. Some of this is because of changes in the business environment and notions of quality which need to be brought into higher education in a meaningful way. We must think about quality and reorganize our organizations so that they reflect that attention to quality.

Third, we are dealing with a situation of rapidly accelerating costs. It is not equivalent to the situation in medical coverage, but there are some similarities that we need to be aware of. Higher education costs across the country have been accelerating at very high rates, nearly as high as some medical costs increases. Student costs, which may not be such an issue in North Carolina, are issues in other states. We must decide what size investment we, as a society, want to make in higher education and decide at what point that becomes less affordable. When do we begin to cut back on our other expectations and goals?

Finally, we are dealing with a situation of changing relationships; the notion of re-inventing government is real. So we need to rethink some of our relationships, particularly between state government and higher education, to ensure that the policies in those relationships allow things to happen that we want to happen. As we think about our objectives, students' goals, assessments, and other things, we need to look back at our existing structures in state policy to make sure that they reflect that sort of change and that sort of behavior. In many instances, that is not the case. State policies tend to support what is in place now rather than the changes that we want to support and to have occur.

Mr. Lenth outlined the principles of quality that ECS wants to examine over the next year. They are not setting out to define quality, nor are they taking on a negative connotation with respect to existing quality in higher education. But these are the principles ECS is interested in pursuing:

1. To attempt to generate much more public attention, involvement and discussion of issues of quality in higher education. Admittedly, there are some risks, but this format is a good example of what needs to occur, both at the state level and the institutional level. Lying behind this is that we can't expect colleges and universities to be accountable to our expectations unless we, as a society, are very clear as to what those expectations are. There are a lot of high expectations, but not enough clarity of what is really expected of colleges and universities. We tend to impose sometimes conflicting goals and objectives and are very ambitious as a society as to what we expect colleges and universities to do. The principle behind that is that we must base quality on the needs and expectations of our primary shareholders. He said again that he felt this format was a proper one to do this.

2. To work with state leadership and institutional leadership on the presumption that we can't have quality organizations, whether in higher education or some other sector, without the commitment of leadership. If we have learned anything from the private sector, it is that there must be commitment from the top and it must be pervasive throughout the organization.

3. Quality in higher education must focus more directly on the "consumers" of higher education; that is the students. Looking at existing quality measures, whether those are in accreditation, or in state-level report cards, or other formats, is where we are lacking in a lot of ways. We have not yet developed good systems that really help to identify and look at the satisfaction of our primary customers, mainly the students. But it does not end there, for we have to think about the employers and state government as consumers of higher education. There is a whole set of consumers that we have to address. Quality, in discussions and definitions of higher education, must ultimately reflect those values of the consumers.

4. Quality must be resource-based. We are not talking about quality at any cost or price. We are talking about value for money issues or state investments in higher education and how our definitions and measurements of quality reflect that sort of calculus. Are we getting a dollar's worth of education for the dollars that the students and the states have put in? That, too, is a rather new agenda: one that needs to be explored, but one that is

increasingly important, both for individual consumers and for state consumers.

5. Quality must, at some level, be measurable. When we talk about quality in higher education, we are developing a new model and a new way of thinking. We don't have in mind the quality of a good book or the quality of a good poem, which in the past tended to be used within higher education as if the quality of a good education for the student is a work of art. But we are talking in different terms. We are talking about quality that pervades an organization much more in line with the quality conversations that are occurring in industry now. That is something that we need to explore together.

Mr. Jones and Mr. Ewell, from the National Center for Higher Education Management Systems (NCHEMS), were next on the agenda. Mr. Jones explained that NCHEMS is a private, non-profit corporation that does consulting, but not for profit. NCHEMS was founded in 1969 as a part of the Western Interstate Commission for Higher Education, which is the Western equivalent of SREB. NCHEMS became independent of that organization in 1977 because they were doing all of their work nationally.

NCHEMS deals with issues of planning, management, and policy making in higher education, at both the state and institutional levels. They deal only with higher education and only with policy-level kinds of issues; that means questions of planning, budgeting, and resource allocation, performance budgeting, assessment and accountability, and issues of governance. That array of activities involves research and development, publication, training, and consulting. On one hand, NCHEMS is a think-tank; on the other hand, it spends a great deal of time working either with a state agency or an institution on these kinds of issues.

Mr. Jones said North Carolina is not the only state that is dealing with these kinds of issues. He said that, in most states, they are seeing depressed or limited financial resources (unlike Virginia and Georgia which actually took money away from education). In many ways, North Carolina is unique from what has happened nationally in higher education. If one looks at the forces of higher education, then the forces are probably an increasing recognition that education is more important than it has ever been. More people want in; more external groups like employers think it's important. They recognize that education is the key to economic competition and their own ability to keep a quality workforce in a mobile workplace.

Technology is changing: things are moving faster. What we are up against in higher education is that we are dealing with more demand. Limitations on resources exist and always will, but in most states they are tighter. This means that institutions have more to do with less to do it with, and the environment in which they have to do it is more complex than ever.

Federal government, state governments, and others involved in oversight of the institutions make life more complex. In most states there is an increasing public agenda for higher education. It is not an agenda in which institutions are free to set their own priorities and pursue their own ends. From the State, the industrial sector and from students, demands are on the institutions as consumers of the products of education. That means that the state, for example, is looking at institutions, not just in an efficiency sense, but in the sense that the state is making an investment. States are asking, "What is the return on that investment?" The terms have to be expressed in the investors' terms and not in the institution's terms.

This is part of the place where communication starts to break down. At the individual student level, particularly in the public view of higher education, the credential of higher education is increasingly important. That credential used to guarantee you a job. Now it's clear that if you don't have it, you can't even stand in line for a job. So from a student's perspective, the "credential," not necessarily learning, having a piece of paper, is critically important in today's market. It won't guarantee you a job, but its absence guarantees that you won't have a good "in" in the current marketplace. Polling data have shown that the public wants to make sure that their children get that credential and that they can get it a price that they can afford. Beyond that, they don't know much about higher education, except that in most states, they don't want to pay any more for it.

In most states there are limited revenues and higher expectations. When everything else is funded, higher education gets what is left. When tough times come, higher education experiences cuts. Distress between the dilemma of access and efficiency seems to be at the heart of the problem, as well as the issue of productivity, to do more with less, to increase workloads.

One member commented that in North Carolina the problem is not how to do more with less, that the University System is not experiencing funding cuts. We have spent a lot of energy trying to allocate resources among the 16 institutions that make up The University of North Carolina. How can it be explained to the citizens of this state? Mr. Ewell said this was a problem across the nation, the dilemma of setting up some tight controls in expenditures for colleges and universities for the purposes of accountability.

North Carolina is experiencing a growth boom; in the next 15 years we are going to need to educate a higher percentage of the population in order to keep up with growing technology. (See Appendix F - North Carolina Public High School Graduates 1983-2009.) Mr. Lenth said this is an item on the agenda in almost all states. Raising the education levels for the entire population is not necessarily focused just on producing more college graduates. That, of course, is part of it, but the feeling for educational needs has changed. There is a lot of attention now on preparation for the workplace. Mr. Jones added that, as a state, North Carolina may have to look more broadly at the entirety of both sectors, and at the question of community colleges versus university. Where and what are the connections between those two systems?

The speakers were asked who should take the responsibility for putting those two relationships together. Does the University try to communicate with the community colleges or do the community colleges try to communicate with the University? Or does the General Assembly have to get into it and legislate? Mr. Jones said that legislation is one way. One of the features of North Carolina as a state is that the structures for having that conversation are largely in the General Assembly. In Virginia, for example, money has been put between the two. That state will pay a capitation grant to a four-year institution that graduates a two-year transfer student. In this way there is created an incentive for the two sides to work together.

Mr. Jones said that many of the issues that have been discussed here are explicit elsewhere. One of them is talking about accountability more broadly in terms that say how is the system working, not how is the institution working. Another common issue is decentralization and deregulation.

Also, education and government are learning from the private sector. There is more recognition that no one can run an institution or department as well as those closest to it. The question is how to get autonomy and deregulation and still have accountability for the right things. In most places this is a relaxation of expenditure control and attention to incentives. Reward performance, rather than attempting to control everything.

One member noted that we do not have a common understanding of what our expectation is as to the University and wondered if there is a process though which we can arrive at that understanding. What do we need to do determine how the University relates to "now" in this world and this state? Has it changed as the world has changed? Perhaps there is a need to examine the effectiveness of our system to see if it relates to the state's problems in the ways that we need it to.

Mr. Jones said many states are experiencing these problems. Most of what goes on in higher education is around an internal and institutional perspective on higher education and its quality and how good the institution is. So when you take a closer look, the institutional perspective tends to be around issues of resources, books, incoming students, and faculty.

Perspectives at state levels are changing. More states are asking what kinds of problems are the universities helping us address. It is not simply, what are they doing in terms of research, but are they doing research on things that are important to us. What are the sets of problems that the state has that the institutions can help with? How do you create enough incentives for the University to want to help?

Another issue to examine is access with more students to educate. To begin this process, start at "where are we now?" How do you look at it from the perspective of the state doing the analysis, not the institution? Look at this state versus another state, or country versus country.

Mr. Ewell added another thing that is important in comparing institutions is to stay focused on the kind of a higher education system you want and what you want its characteristics to be. There are a lot of legitimate differences among institutions that are serving many different kinds of needs. But then there may be some things where everybody is in the same business. Where this occurs, comparisons are appropriate. Mr. Jones replied that you could create a system composed of 16 wonderful institutions and still have a system that serves the state badly.

One member commented that data is always expressed in terms of the dollars that are being created for the University. Until someone explains how the research is helping the state, it is meaningless. Mr. Jones said that there are various ways to go about that. By far the more useful exercise is just to stand back and say, "let us paint a picture of the state and its higher education." If you can change anything about this picture, what would it be? Maybe it would be what kind of students, or what area in the state the institution would serve. Out of that kind of mosaic, can we have a conversation of how we can change this picture so that we will be better satisfied? How do we assess this?

Mr. Jones said research is difficult to evaluate in many ways. It is also complicated by many factors, particularly with research universities. These institutions not only have the state and students as a set of clients, but they also have the national institutions and the federal government as a set of clients because that is where millions in grant money comes from. The question of the state government is not to ruin that, because that creates the basis on which you could do a lot of things. The state should concentrate on how to "tap that." Now that you have all those smarts here, how do you use it? The question is not to destroy the capacity, but how to use that capacity to do things that would benefit the state.

Mr. Jones said if you can get your priorities straight, then you can create a dialogue and have a meaningful conversation with the University. Commission members pointed out that when they got into K-12, they considered the Schools of Education in the University system as part of the problem. It is difficult to bring about change when a bureaucracy has taken on a life of its own. We must articulate what our expectations are because the University will respond.

Mr. Jones said that one of the things they also have learned about the change process is that creating more mandates is seldom the solution. You have to create an environment in which change is supported, but you can't drive it. As soon as you get in that pit, you have just created a mindset at the institutions that says let us respond in a very bureaucratic way to a mandate, let's cover our bandaids and not be as innovative as we can be.

Next, Mr. Jones discussed the relationship between planning and resource allocation, which is a device for making sure those plans are carried out. With regard to North Carolina's plan, how do you ask the question, how do you put money behind achieving particular ends and how do you do accountability against those priorities? Until you can come to a determination about what the state's priorities are, then you cannot ask institutions how well they are doing against anything but their own priorities. It is hard to hold them accountable for something you can't determine.

One member said the Board of Governors is responsible for institutional planning, but not for setting the priorities of the state. Mr. Jones said that if one follows that around, from the state perspective in particular, what is required is an agreement on priorities. The second is some consistency, if accountability information is requested, it is around established priorities.

The budget is still the biggest driver as to what institutions see as important. Policy differentiation does not fit every institution. It is much better to create an environment with the institution that it is in its best interest to do the right thing, rather than by mandate or regulation. Universities are so full of really smart people that they can always get around those.

Mr. Jones said there are at least three different kinds of structures that other states have put into place. One is a coordinating board, a group that monitors things. A second is like in Colorado. Every year the Governor and the leadership of both the House and the Senate get together to identify the priorities of higher education. That forces a conversation. It also runs the risk of changing things every year. A third model is a regular cycle of review to take a systematized look at things. The cycle of review should be more often than every fifteen years.

But first, the State must decide what balance sheet it is looking at and what it wants to accomplish? Should we look at professional programs or graduate programs? Should we look at the private sector to provide certain kinds of education?

Mr. Jones said there are five issues of concern common in most states. These include: (1) Undergraduate education; (2) the appropriate role of the university system in K-12 Reform; (3) training to meet specific workforce needs; (4) the State's capacity to use applied research to solve State problems or meet specific State needs; and (5) ways to get an older workforce, 40-50 year-old adults, to be functionally literate.

Most states don't have the dual system that North Carolina has. But the roles are changing, although we still think in terms of the Community Colleges and the University as being totally separate. Now community colleges are getting more students who transfer to the University and the University seems to be attracting more business.

Mr. Jones said California has had the same type of experience. In order to avoid conflict between the systems, the two entities (Community colleges & University) created a no-man's land, with one side saying, "It's not my job" and the other side saying, "It's not my job." So certain things never get done because it becomes nobody's job. How do you fill in the gaps?

One member replied that a problem with our system is that it has to articulate statewide because our institutions aren't the same in each region of the state. Mr. Jones said that goes back to the premise that the system may not be the solution in all parts of the state. If it were just a local problem, it probably would be easier to deal with. But it is a systemic problem because of the way the state has structured the system.

Mr. Lenth assured the Commission that these same problems occur in other states with different governance structures. He wondered if the issue was the governance itself or some other issue. While there are examples of masterplanning and strategic planning, there are very few examples that are more like an investor's meeting, where you bring, whether on a regional or state basis, stakeholders into that discussion rather than just those who are in the operations now. But no matter what the framework for the governance structure, you will have to do some of that before you get to these issues.

Mr. Lenth said there are several other states which have legislative study committees from time to time, but they aren't very powerful vehicles and maybe that's what missing. Even in Florida, where they have permanently staffed vehicles working for the legislature, they tend to be of a different nature. They do reports and so on, but they don't tend to interact with the stakeholders on a regular basis, only periodically.

Mr. Lenth said it would certainly have to go beyond the higher education governance structure to include meaningful legislative, governmental and local service components. But again, he said, states were approaching this problem in different ways. In some states, for example, there are blue-ribbon study commissions that are very heavily represented by business interests. It should be left up to the state to decide who has a role in making their expectations for higher education known.

Mr. Jones said he had worked with many states that were going through this process, and one of the things they observed most often was that there is a natural orientation to say, "Let's have a hearing." Those almost inevitably turn into useless conversations.

But if you do picture the state, how do you think this picture should look, what would you change to make the picture better, from your perspective, to fix it. A couple of things happen. They are very likely to come up with the same list of ideas. This starts the process of building, not political consensus and not only within the political structure of the state, but in the largest set of constituents. Mr. Ewell added that typically in these groups would be players that are key public service representatives, both government, occasionally students, particularly adult students, and general taxpayers.

Mr. Lenth added that, on the other hand, there is a risk of dividing up too much from the ongoing governing structure. A couple of states have set up very independent bodies, but then they come back to use the higher education leadership or the legislative leadership. He said he would argue for a "balanced dialogue."

Mr. Jones said that one of the dilemmas they have found is that it often takes a third-party agency, separately funded perhaps, to get that going. He said California has something like that. Mr. Lenth said just this year the Governor of California appointed a special commission to do this.

Right now there is no incentive in the System to get people out of the classroom and into public service. There is no reward there in the world of academia, only rewards for other kinds of things like publishing and research.

He said there are many disincentives to that sort of engagement and that the reward structure is built to reward different things. On the other hand, there are many faculty members who really want to do those kinds of things and there is a lot of interest on campuses to do them. Some campuses are even changing. To do that, often there needs to be some connection outside, not necessarily just financial incentives, but some connection outside the campus environment where the odds are against them, whether they are individual faculty members trying to teach critical thinking skills or to get their students out into the community doing community services. He said he would look at the leverage of change outside the college community.

Mr. Ewell added that there have been some successes when money was set aside for achievements in specific priorities. There is a highly competitive culture in academia. Mr. Jones said this is a construct that has happened in the last 50 years because the Federal Government had enough money for research, which provided large amounts of discretionary resources for a university's faculty. When that happened then the reward, promotion, etc. followed that sort of lead.

One of the interesting phenomenon of the cold war's declining threat is a change in the national priority. But the state priorities change also, and the question now is what is the new agenda. If higher education is not doing what we want them to do it is because we have set up the wrong set of priorities. This is hard to accomplish if you don't know what your priorities are.

When the state has a budget for higher education, one often thinks about it in three parts. The big part goes to the University as base funding for them to accomplish its mission, it's the continuation part of their budget. It sustains the asset structure. It keeps them doing what they do. But if you are going to have priorities and are going to try to move some things, if you don't reserve some funds on the side, for example, then you have lost the major tool that you have to affect that change. There has to be a relationship between your resource allocation process and your priorities.

One member commented that, even before the General Assembly gave the University flexible budgeting, they were receiving all of the faculty salary money as a block grant and they did with it what they pleased. They didn't even give a cost-of-living increase. He said he had never seen the General Assembly be able to affect policy with anything but money or the courts.

Mr. Newlin said that in this last session, legislation was passed to lower the student-faculty ratio to no more than 16 to 1. The legislation passed and the allocations were spread to where the ratios were. He talked with chancellors who received funding for this to see what they had done with that money. Each had put every bit of this funding into freshmen teaching. They were concerned about the size of freshmen classes, concerned about freshmen getting the courses they need right off hand, and they were concerned that the faculty were not interacting enough with the students. Looking back on this, perhaps the Legislature could have used the same thinking by allocating the money to those schools that agreed to use it only for freshmen instruction. This is the type of thing that the General Assembly can do.

Mr. Jones said that perhaps 90-95% of the budget should be block-granted to the institutions for their missions. Another pot could be set aside that the General Assembly can invest in achieving the state's priorities.

A member observed that in all of this we haven't talked about the Board. What we have been doing is giving them money to enhance the existing programs out there and the additional money to our Board for them, not the state, to decide how to do it. Up to this point we have allowed the Board to determine priorities. Mr. Jones responded that the notion of centralization or decentralization or autonomy are not mutually exclusive conversations. There are ways to have the University maintain its autonomy with the block grant money and accomplish its mission. But he felt that "investors" should enter the market on behalf of the state.

Mr. Jones said that the next question to ask is, "What is to be done and how are we going to do it?" Often in the absence of talking about the what, they tell you the "how." Instead of saying, "we really do want better retention and graduation rates," they will say, "we want more advising." And then you ask, "did you?"

Several members said that the key thing that is missing here is that we need to sit down and tell the University what we want up front. Then take new money, tie it up and say this is what the state and the taxpayers need from you instead of waiting for the Board to send its priorities over. The state is missing the opportunity to get help from the University simply because it is not identifying any of the ways in which the state needs help. Mr. Jones suggested that another way to do this is to say, "We are going to pick those measures like percentage of tenured faculty that teach."

In general terms, how do you decide what to let the General Assembly decide and what to leave up to the system. Mr. Jones spoke of policy review, to look at why things are working and what is the cumulative effect of all the acts of the legislature and the governor over the last ten years. One of the things that they found was that many of the laws on the books deal with a single institution, a single problem that is applied to every institution and every problem. So when someone was seen using a state car in an inappropriate way, not only did that institution get singled out, but they combined the motorpool for the whole state University system under the Department of Administrative Services as the response to that one individual being off base in that one instance.

Mr. Lenth said it is important to make some observations about what has happened over time. Some of the different types of policies that used to be in place are no longer as effective as they once were, which is contributing to a lot of frustration. Tuition and fee policies are one example. There used to be somewhat more concrete guidelines in place in many states with regard to tuition and fees. In other states, they simply set them aside with the notion that tuition shouldn't be more than one-third the total cost; when they could not hold the line on that, everyone sort of gave up. In other states, institutions are now making tuition decisions virtually on their own with only frustration coming from the Legislature.

Mr. Ewell said there were a lot of things going on in other states that the Commission may want to know. Around the mid-80s, programs were put into effect to make assessments and provide accountability. Many states have been running into difficulty in short funding time and the difficulty of having those kinds of measures add up. Some are not good, but one can learn from mistakes. The kinds of things that some states are looking at much more fully are budget practices, freshmen accessibility to kinds of classes that are needed, access to senior faculty, senior TAs, and things of that nature. Many states are tying these kinds of things to funding.

Literacy education at community colleges is one example. This is such a large problem to deal with, but there is not enough money to do it. The problem has to be expensive enough to make the institutions go after the money.

Mr. Jones said that in some states this problem is not necessarily assigned to the Community colleges. One answer may be to let the employers pay, because the motivation for somebody to gain literacy skills is much greater if it is tied to their workplace than if it is disconnected from their workplace. So the question is how to get employers engaged in this conversation. Or how do you get the community-employer partnership engaged in this kind of conversation?

Mr. Ewell said sometimes the bait corresponds with the priorities of local leadership at the campus. One of the things that they discovered both in assessment and marginal funding programs is that it sometimes doesn't take money to get changes to happen if what you do is to empower someone at the institution who wants the change to happen. Sometimes managing the policy is putting an incentive so a president or academic vice president, for example, can say it's not me that's making you do that, it's those guys in Raleigh making you do it. So you have to know what their priorities are and see how they correspond with yours.

Mr. Jones said that, from a student perspective, there is the question of whether there is a likelihood of someone who looks like them being successful at that institution? That is the consumer question. Dr. Watts said it is also a management question. One needs to understand this experience at the public school level in terms of disaggregating populations at building comparisons in terms of similar populations at other schools. It is very useful knowledge in a management sense in terms of what you need to focus on. If your similars are not doing as well as in another setting, then you probably have some focus issues to deal with. This illustrates the importance of having data.

Mr. Ewell said that one way of doing this is to examine graduation rates or achievement rates for a specified body of students that meet certain characteristics like, for instance, a student's kind of preparation level, or perhaps his attendance record. It is important to take this down to the student clientele. Dr. Watts said the point is understanding students as customers, and determining how well they are being served and understanding similar students at other institutions.

Mr. Ewell examined the elements of a "customer service" approach to accountability. He said there are two things that have to go on when assessing accountability. One is highly decentralized, the method that most states had in the early 80s. That is, having institutions assess themselves against their own goals, set their own targets for continuous improvement, try to be as creative and wide-ranging as possible. The most common practice is periodic peer review of one kind or another, where people will come in as experts and look at what's happening. But it's a highly decentralized focus that's aimed at causing improvements.

The second and quite different one is in those areas in which the state feels that all institutions are in a common business. That is principally undergraduate education. You may want to have some things that are centralized and assessed against common goals.

But one is not a substitute for the other. You can't say, for example, that if you do a good job at your internal improvement mechanisms, then you have done this job meeting common ends or discharging the accountability obligation. Those kinds of efforts don't add up to a coherent accountability picture and don't serve the common ends particularly well.

Mr. Newlin added that in North Carolina, we took both these kinds of assessments and pushed them into one report. Perhaps we should try to pull that data apart. On one hand, we have the institutional piece which is individualized, but also the common goals that are across campuses to make whatever changes that are necessary.

Mr. Newlin said that data can be broken down to compare how similar students are doing at different schools. Mr. Ewell said that one way to improve this is to compare like-populations across institutions. Another is to put in place next to these performance indicators some descriptive indicators that say what kind of institution this is and describe it in terms of things like "part-time attendance, characteristics of its student body, entrance scores, etc," so that a person's judgment can contextualize that and more fully understand what he is looking at. The danger in the Quantitative Indicators Approach is that if you don't contextualize it, then you are going to homogenize institutions. There may be some areas where you want similarity.

Mr. Jones said that a couple of things came up earlier that covered this. One is what is a fair comparison. We have covered some of that by differentiating. But what is the use of the data? Is the purpose to aid student choice, is it a consumer kind of thing? For example, Wisconsin has just engaged in a process where they are trying to put in a publication which describes the system, a number of these kinds of indicators that are relevant to a particular student's choosing a particular institution.

The final point is that whatever is done with these kind of data, there is a need for several of them to enforce one another, different kinds of data that look in different directions. Because once you start a performance data, the temptation is very strong on the part of any unit to make that a must.

There probably needs to be some measurement tool so that an institution could determine if it is "up to speed." How do you know how much your students can learn. He wondered if schools were giving these students more knowledge. If SAT scores go up, does the difficulty of the education change?

Mr. Jones said they also find just the opposite. When some schools invested in merit scholars and their SAT scores went up, indeed the retention rates went down, not up. What was happening was that they had all the better students and the mark of a good institution was to show how hard they could grade. The second part of it was that the faculty turned into a set of folks who were not respecting better students, but were in fact punishing them for being better student. So it works both ways.

The panel members were asked if they had any thoughts about how big a school should be. Chapel Hill and State have about 25,000 students, and there has been debate that they're too big. The numbers keep growing. If the state has this big population coming as it now appears we will either have to get the community colleges to educate more and let the University do more of the third and fourth year or we are going to have to expand or build more universities.

Mr. Ewell asked, "What is the real question?" He said overall student-size is the wrong question. The right question is what does the student experience look like in terms of classes, in terms of the kinds of experiences that the student has access to. That can occur at an institution of 60,000 if the resources are managed properly, or it can occur at an institution with 2,500 students. Class size, access to faculty, and advisor access are factors.

Mr. Lenth said there is another aspect of this. In the future, we seem to be moving into the direction of size being less important, and location being less important. As students move around from institution to institution, you need that kind of flexibility. Some students may experience part of their education in a small institution and part in a large, and the job then is to connect those in a more meaningful way. We can work around size.

Someone asked how many more students could be admitted to the University without building more buildings. Dr. Carroll said that the University was probably at capacity as far as dormitory space is concerned, but the saturation level is difficult to determine and will vary from campus to campus.

Another member asked if all of those future students will be able to comprehend or to benefit from a college education. That is one aspect to bear in mind as we expand. We are trying to build and expand the University System. Another thing to understand is that there are independent colleges in North Carolina that will absorb some of this growth, and appropriately so. One of the things that makes North Carolina is the choices that it offers. If we are making policy on expansion to absorb anticipated growth, it is not up to the state to provide for all that growth.

Assuming that we are going to have this growth, another member said if the state doesn't address this situation, community colleges have an open-door policy, and as they turn those students out, the University system is going to have to take them. There will be a system where the first two years are at the community colleges and the last two are at the University because all the capacity will be used up more and more taking transfers. If we don't say up front that we are going to open these doors, it is going to happen anyhow through the back door and these institutions will dramatically change. In some institutions, transfer students may be a solution to build enrollment.

Mr. Jones said he was dealing with this same set of issues with another state at this time. The questions really are, what do you want the future system of the state to look like? Do you want another research university? When you think of it in terms of another large university in five or six year, what kind of place should that be?

Secondly, how would you distribute that? How many would you like to see in community colleges versus the University? Mr. Jones said the third question is, are there some kinds of students out there that aren't in the system that should be and does the state need to provide some sort of education for them?

Mr. Newlin said the community college transfer program has accelerated fairly rapidly, approximately 45%. The University system has had enrollment growth during a period of four years of declining high school graduates. Now we are going to start to have high school graduates increase again and in just looking at the same ratios, have an equivalent of an East Carolina over the next eight years. Mr. Newlin said this growth is going to take the capacity of the UNC system, community college system, private colleges, and will even take new relationships. (See Appendix G - Distribution of All Undergraduates in North Carolina by Level and Sector in Fall 1993.) The Board of Governors will have to look at how they are going to provide instruction off the main campuses. One member noted that individual campuses are looking at this from the institution perspective and not in terms of what the state needs will be.

Mr. Jones said that five years ago, California was playing from great strength, but now has lost it, partly because of the economy, but mainly because they don't have a mechanism for dealing with state policy. Now they cannot act. He said it doesn't take long to lose a very good thing.

He said it hasn't changed, that it is still three sectors, a University system that the top 12 1/2 percent of the students are eligible to attend, a State College system that takes the top third and a community college system that takes everyone else. It was observed that California's and North Carolina's systems were similarly structured.

Mr. Jones added that one of the problems that arose when things got tough in California, was that there was no place to deal with state policy. So each of the systems responded against their own set of priorities. What has happened is that 200,000 students have disappeared from the California higher education system. They just made it impossible to enroll. Mr. Lenth said that funding was cut and the institutions dealt with this by not taking as many students.

One member concluded that, in the absence of specific attention to this, something will happen to our higher education system, and "it probably won't be something we want."

Fourth Meeting -- October 25, 1994
Research and Teaching

Research: What it is and How it Benefits States
Jim Newlin, Commission Fiscal Analyst
Dr. Jim Watts, Commission Education Specialist

Mr. Newlin presented information prepared by the National Commission on Higher Education Management Systems. Comparative statistics give a perspective on where North Carolina is strong, where North Carolina is weak, how research is funded, and some of the perceived conflicts that occur. Mr. Newlin observed that he did not know if there was a conclusion to be drawn from these statistics, other than the fact that research is an important part of the University system. The purpose of this meeting is to examine how research ties in with the mission of teaching. However, in terms of research, we certainly don't lead the pack.

Mr. Newlin gave research expenditures per capita at the doctorate-granting institutions: UNC-Chapel Hill, NC State University, and Duke University. (See Appendices H & I - Comparative Information Regarding Research Expenditures.) Overall, North Carolina is near the top, but below Georgia, Maryland, Texas, Virginia, Michigan and Wisconsin. Maryland's very high overall funding per capita reflects significant funding of major Federal installations at Johns Hopkins University. The Engineering Research Expenditures Per Capita, North Carolina is below the U.S. average -- the only states we rank above are Florida, Illinois and New York. Again, Maryland is the highest because of Johns Hopkins and the close proximity to Washington.

With Physical Sciences Research Expenditures Per Capita, North Carolina compares poorly, less than 50% of the U.S. average. North Carolina ranks poorly in the Environmental Sciences Research Expenditures Per Capita. Among the states on the chart, North Carolina is about average in the Mathematics & Computer Science Research Expenditures Per Capita. However, we are somewhat above the national average. North Carolina compares very well in the Life Sciences Research Expenditures Per Capita. Duke University has a significant impact in this field.

With Psychology Research Expenditures Per Capita, North Carolina is a little behind. North Carolina is about average with Social Sciences Research Expenditure Per Capita. The ninth chart Mr. Newlin discussed was Shares of Federal Research Funding Received Relative to Population. Compared to our population, North Carolina is getting a little more than its share. Overall, we are slightly lower.

North Carolina gets less money from foundations than most of the other states -- less than one percent. Overall in the U.S., the average is 7%. In terms of dollars, this is significant. North Carolina gets more money from State and Local Government, 21.3%. This is the highest percentage of the states with which we have been comparing. With the institutional funds, we are getting less money.

All of the above data was for fiscal year 1992. Prior to 1991-1992, these campuses could not move money into research from a flexibility standpoint.

In response to questions, Mr. Newlin said the only thing he could think of that would have an impact on these charts was the funding of engineering-doctoral degrees at UNC-Charlotte & NC A&T State. Over a period of time, this could have an impact.

Mr. Newlin concluded that the main message received from the above information is that institutions have different missions. He rejected the idea that it is necessarily a research OR teaching situation.

Dr. Watts was next on the agenda. The appropriate way to discuss these findings is research and teaching. We have a tremendous capacity with our universities here in North Carolina. Depending upon the institution, it is a question of mission and focus.

Dr. Watts talked of basic research that was done in terms of the hours worked per week by full-time faculty at public institutions. At those institutions where their primary missions are public research, their faculty tends to work more hours than others. In comparing average weekly classroom hours, in a research institution, they are working less classroom hours than others (research institutions being NCSU, UNC & DUKE). Doctoral granting institution is UNC Greensboro. Comprehensive institutions are most of the other universities with the exception of Asheville & NC School of the Arts. The professors working at research institutions spent comparatively more time with research than teaching.

The last chart Dr. Watts showed was supplied by the Carnegie Foundation for the Advancement of Teaching, which polls university higher education professors and teachers. (See Appendix H-1.) This chart shows that teaching effectiveness should be the primary criterion for promotion of faculty. The tendency is directed towards research in terms of priorities. The last part of the chart states, "It is difficult for a person to receive tenure if he/she does not publish" with percent strongly agreeing or agreeing with reservations. The increase since 1969 in the comprehensive campuses was 33%. When asked why faculty has changed its mind since 1969, it was noted that, in the 1950's, research grants were novelties -- this kind of funding just was not there. For a variety of reasons, there are pressures for institutions to become more research oriented. It is important to understand why this is happening.

Research at The University of North Carolina
Dr. Jasper Memory, Vice-President for Research, UNC
Dr. Tom Meyer, Vice-Chancellor for Graduate Studies and Research, Kenan Professor of Chemistry, UNC

Before Dr. Memory began his remarks, (referring to the statistics by Mr. Newlin and Dr. Watts), he stated that there are always different ways of presenting statistics. Dr. Memory presents statistics without per capita information and does not include Duke with Chapel Hill and NCSU but does include the other 14 campuses. Having said this, he cited a single statistic about research funding. The National Science Foundation ranks the university systems across the country in terms of federal research and development dollars. On this basis, the UNC system has been ranked fourth in terms of federal obligations in terms of research and development, behind California, Texas and Wisconsin.

A university is a place where learning occurs. There are three principle missions of the university: teaching, research & public service. Dr. Memory spoke of how research influences each of these three missions.

Teaching is the primary purpose of our universities. Research plays an important role in teaching. This is most obvious in the training of PH.D. students. The graduate education of students, particularly at the doctoral level, is the preparation for the professors of the next generation. They learn to be professors through doing research and also through graduate teaching.

Dr. Memory discussed the results of a random telephone survey was conducted in 1991 of NC citizens. Conducted by a UNC professor, the following question was asked: "If you know a particular professor does research, do you think that he or she will be a better teacher for having kept up in research or a poorer teacher?" The results of this survey, which has been published, show that, by almost a 3-1 margin, NC citizens believe that professors who do research are better teachers.
Public service also interacts with learning. We have cooperative programs throughout the State. These are usually very positive experiences for the students. These all involve research.

Dr. Memory noted that there has been a re-examination of the mission statement of all 16 campuses of UNC. It is explicitly stated that teaching is the primary function. In the past, there may have been an over emphasis on research because research is easier to measure. He applauds recent efforts at our campuses to provide better measures in the quality of teaching.

One member said that teaching effectiveness should be the primary criterion in the promotion of faculty. At the research universities, only 27% strongly agree with this. He asked if this was correct. Dr. Memory said if this was the case, then it is a misperception. He believes teaching in the last few years has come to the forefront in importance in terms of promotion and tenure. There may be a lag time before the faculty fully appreciates this.

Dr. Tom Meyer presented a slide presentation for the Commission. He believes they are creating a model with funding from foundations. Another aspect of the research effort is the economic consequences which are significant. In particular, last year at Chapel Hill, their total funding from outside N.C. reached $244.6 million; our state appropriation was $270 million. Multiply $244.6 by two and three and the consequence is roughly 1/2 billion dollars of economic activity. We have been able to compete in this environment in a successful way. We need to keep this competitive edge. DuPont is one of the major suppliers of research funds, as well as Baxter, Ciba-Geigy, Procter & Gamble, Hoechst-Celanese. These companies are non-RTP companies.

We need to compete internationally. We need to use our science technology and make contacts with industrial labs. This is where the U.S. economy is going to grow in the next few years. We are getting into this game, not as much as the West Coast or Boston, but we can get close in the next few years. As of this year, UNC-CH became among the top 20 research universities in terms of total Federal support, the only one in the southeast, including Duke.

A discussion about the research funds followed. Do they supplement professors' salaries, also? The National Science Foundation, for example, allows professors to take a one- month summer salary (their salary base is for nine months). In the health sciences, the amount of support coming from grants is traditionally higher; in the arts and sciences it is typically three summer months. Dr. Memory added that the rule is if a professor is on a nine-month salary and does not work during the summer, summer salary can be paid out of a research grant. They cannot get paid at a higher rate than the regular academic year salary. Some agencies put a limit on the number of months. The academic year salary cannot be supplemented with grant funds from the National Science Foundation.

North Carolina is paying salaries for nine months. During those nine months, they are teaching six hours and saying they are doing research half of the time; why is not the research money used to pay half of the salary? Dr. Memory said this is not usually approved by the granting agencies. Research is done all year. Almost all research grants require matching funds on the part of the university. Because almost as much money comes from research as from the General Fund appropriation, it appears this would be a place to get some money to raise faculty salaries if, as the enclosed chart says, 40% of the time is spent doing research. Dr. Memory said typically the matching fund is that a professor does not have to teach 12 hours.

Dr. Meyer said that 75% of the salary comes from research grants. Dr. Memory was talking in terms of a supplement. Dr. Meyer was describing a case in which the position itself is designed to be supported in part by state funds. One member pursued by asking if 40% of a professor's time is spent in research all year, why can we not draft our proposal so that 40% of the salary all year is paid from research funds? Mr. Newlin said this can't be done; Dr. Meyer said this is done in the health sciences.

Another member asked about the "brain drain" syndrome. He said he has reports that we are losing some of our better faculty. Are we losing teachers or are we losing researchers to Emory, Vanderbilt, Duke, etc.? Dr. Meyer responded that in reviewing 150 applications, they interviewed perhaps six and hired no one. The reason why is that if they can't survive in the modern world and acquire research grants and be amongst the best research people in the world, then we can't survive the high level. These are the people (teachers and researchers) we are talking about -- a very small fraction.

<u>Undergraduate Research Programs</u>
<u>Dr. Patsy Reed, Chancellor, UNC-Asheville</u>

Dr. Reed described the undergraduate research programs at UNC-A, which provide one-on-one involvement with students, thereby giving them a great deal of confidence as well as an opportunity to disseminate their results. These are high quality research projects. Institutional funds go toward faculty salaries. The outside funds do not go to faculty salaries during the school year. There are stipends for the faculty for summer research. The only faculty member who has any release time is the director of the undergraduate research program, who has one course release time.

<u>News & Observer's Findings on Research in North Carolina</u>
<u>Robin Johnson, Committee Counsel</u>

Ms. Johnson summarized this recent report, which was based on a six-months look at a series of growing industrial academic partnerships. The main thrust of these articles was on the conflict-of-interest problems that arise from corporate funding of research at the universities. Ms. Johnson reported there are three essential questions raised in these articles: (1) Has corporate funding of scientific research in the Triangle's universities (NCSU, UNC & DUKE) been good for science?; (2) Can professors still be objective about the ideas they cast?; and (3) Are universities focused on the public's needs or on the bottom line?

Corporate funding of scientific research at these three universities has grown from less than $10 million in 1984 to $56 million in 1992. Duke has a 500% increase; NCSU shows a significant gain. The articles quote Dr. Meyer, who said he thinks the reason for this growth is that federal funding isn't "expanding fast enough" to keep up with the demands.

The articles show also how the total research spending at these three universities has more than tripled during this period from $50-75 million in 1984 to $140-190 million in 1992. Ms. Johnson continued by saying that universities are very dependent on grants and contracts. Research dollars at NCSU and UNC constitute about one fourth of their operating expenditures. This computes to approximately 1400 out of 4100 people dependent on grants.

Congress passed the Bayh-Dole Act in 1980 which allows universities to patent technology that taxpayers pay for through federal research grants rather than leave the patent in government hands. The last article in the report shows the interconnectiveness of the universities for scientific research. Ms. Johnson highlighted a few notes. Industry investment at Duke has climbed 500% from $5 million in 1985 to $31.9 in 1992. The National Science Foundation ranks Duke third among all U.S. universities. NCSU was ranked eighth in industry-sponsored research with $20.3 million in 1992, compared with $8.2 million in 1985. In 1992, NCSU was ranked 12th among American universities in 24 U.S. patents; in 1993 it obtained 30 patents which is expected to boost their rank into the top ten. UNC-CH was ranked 120th out of 459 universities with $3.3 million in university funded research and development reported in 1992.

<u>How Do Universities in the UNC System Identify and Reward Excellent Teaching?</u>
<u>Mr. Ran Coble, Executive Director, North Carolina Center for Public Policy Research</u>

Mr. Coble began by noting that the Center is a private nonprofit corporation with the goal of conducting research for citizens and policymakers on how well state government works and on significant policy issues facing North Carolina. They publish their research in their magazine, <u>North Carolina Insight</u>.

Mr. Coble offered a draft bill that would statutorily enact current Board policy on evaluation of teaching performance, clear up the murky area of whether tenured faculty are to be evaluated, plug two loopholes he described, and make permanent the legislature's commitment to programs for teaching awards and endowed chairs for teaching.

Mr. Coble concluded his testimony by quoting the former president of Harvard University, Derek Bok. He said this quotation is reinforced when hearing from people on campuses in North Carolina speak of teaching <u>loads</u> and research <u>opportunities</u>: "Rather than just reacting [to attacks on universities], we need to see what's bothering the public...I sense that somehow...despite the improvements that may have taken place in the quality of undergraduate education in this country, the public has finally come to suspect quite strongly that our institutions, and I would emphasize particularly our leading institutions, are not making the education of students a top priority, especially for our undergraduates... There are many little signs that betray these priorities...;when we go and recruit a star professor, the bargaining chip is a reduced teaching load, not a reduced research load... The public understands these priorities, and the public doesn't like them."

When asked if we really work hard at trying to improve the quality of teaching through improving private gifts and grants to the university system, Mr. Newlin replied it is hard to say how we stack up with other states. In 1985, the legislature set up distinguished professorships in the approximate amount of $16-20 million, with state money to be matched by private fund. In 1993, the legislature added that any money that the Board put into any distinguished professorships was to go to professorships where the primary emphasis is on teaching (this was only for the 1993-94 years).

Recent Changes at UNC in Rewarding Excellent Teaching
Dr. Roy Carroll, Vice-President for Planning, UNC

Dr. Carroll distributed a booklet entitled, "Tenure & Teaching in the University of North Carolina". In 1992, the Board of Governors had a number of questions raised about the criteria for awarding tenure to faculty members. There had been a tendency over time for teaching to be less well rewarded than it once was and for research to be more rewarded than it once was. Also, the tremendous growth in graduate education in the 1960's, 1970's and early 1980's led to some neglect of undergraduate education.

Beginning in 1983, there was growing concern expressed in national studies about the quality, character and integrity of undergraduate education and what needs to be done to improve it. A previous self-study was devoted almost entirely to research with very little about undergraduate education. The dramatic shift in 1994 was a reaccreditation process with the self-study entirely on the question of undergraduate education. This is a real change in attitude.

A review done in 1993, with 100% participation, demonstrated that the quality of teaching is a matter of genuine commitment and concern on all UNC campuses. It is the most important, single factor in reappointment, tenure and promotion decisions. Teaching is to be the first decision in faculty personnel decisions. The most common form of evaluation of teaching is student ratings of instructors and its courses. Interviews with graduating seniors is another form of effectiveness, and surveys of alumni. This evidence concludes that student satisfaction with teaching is quite high at all of our institutions. Peer review among the faculty is another good form of evaluation. It involves a lot more than just observation of classroom teaching.

Eleven institutions have revised their statements with respect to teaching, while the remaining five institutions indicated there was no need for a change. These statements will be adopted by the full Board at its November meeting. Serious efforts are being made on an unprecedented scale to improve the ways we identify, recognize and reward good teaching throughout the university. Substantial progress has been made in clarifying priorities, clarifying standards and procedures for making personnel policies and decisions. There will be more focused, structured and extensive evaluation of faculty performance, especially teaching effectiveness.

The Institute for College and University Teaching
Dr. Judith Stillion, Interim Vice-Chancellor for Academic Affairs, Western Carolina University

Dr. Stillion gave an overview of the background of the Institute for College and University Teaching, which began in 1985. The Institute's three charges are:
1. What is effective undergraduate teaching?
2. How do we measure it?
3. How do we reward and support it?

Dr. Stillion introduced Dr. Ben Ward, Associate Director of the Institute. Dr. Stillion and Dr. Ward presented a slide presentation for the Committee. They discussed the factors of good undergraduate teaching, the stages of teacher development, barriers to good teaching, and what can be done to remove those barriers and promote good teaching.

Fifth Meeting -- November 28 and 29, 1994
Funding Issues

General Overview of UNC Budget
Jim Newlin, Commission Fiscal Analyst

The total UNC Budget for 1993-94 was approximately $2.9 billion in operations. $.3 billion of that was the UNC Hospital with the remainder for all the campuses for general administration. The non-General Fund revenues actually exceeded the General fund revenues by a significant amount of money. The total fund equity was about $4.6 billion, of which about two-thirds is investment and planning, which includes buildings, equipment, and things of that nature.

Total revenues based on an accrual basis, are $3 billion and total general fund appropriations amount to about 37% of the overall operating revenue. Expenditures, just under $2 billion. Auxiliary operations, (one-half of that being UNC Hospitals) balance represents dormitory operations, food service, bookstore, etc.

On the 16 campuses, tuition amounts, which are about $247 million in revenue for UNC, total just under 10% of the total operating costs. The General fund appropriation is just over $1 billion for the 16 campuses. Independent operations and clinical services are $154 million (majority of that is Medical, Dental, and Veterinary practice plants at ECU, UNC-CH, and NCSU). Of the $1 billion, $17.5 million is carry forward money that the campuses are able to retain based on the budget flexibility legislation.

Mr. Newlin explained that the majority of the General Administration's receipts would be 5% of the indirect costs that UNC-CH and NCSU get from overhead receipts from research operations. UNC Hospital is an enterprise operation and does not show up in the General Fund budget. The total expenditure last year for the Hospital was $328.2 million. Total revenue, including appropriations, was $366 million, of which the General Fund amounted to 11.3% or $41.3 million.

It was pointed out that the expenditures were about $38 million less than the receipts and that the General Assembly appropriated $41 million. When asked what happened to the $38 million, Kenneth Briggs from the State Budget Office explained that the Hospital began selling bonds for new construction when it became an enterprise fund. The bond company had a requirement that they set up some separate funds such as a hospital reserve fund and a management reserve fund. Balances are accumulated in those funds in relationship to the debt load that they have on the bonds that are already sold and for cashflow purposes. Those noted balances are deposited into those funds for debt-service requirements as well as maintenance and operation of the facilities. At this time there are collectively approximately $1.3 million in these funds accumulated over the last three years. There is a relationship that the bond rating agencies think should be maintained between cash and the balances in these funds and the debt service load. This is not uncommon.

Mr. Briggs said the basis for the appropriation has historically been to cover indigent patient care costs, as well as unreimbursed teaching costs from the federal government. Receipts from all sources, like third-party payers, Blue Cross/Blue Shield, private paying patients and state appropriations go into the hospital operations. It could be said that there is an equivalent relationship that those funds go into the operating budget and what is left over goes to enhance those fund balances.

Discussion followed which explained how the hospital evolved into an enterprise fund. There is a special provision in the law that allows them to take any over-realized receipts and spend them on buildings without having the approval of the General Assembly. Over-realized receipts are kept and put into a fund that the General Assembly has no authority over and this is used to create "self-liquidating projects." When one sees this in the budget, it appears that it doesn't cost anything.

The General Assembly found out two years ago that, at North Carolina Central University, the total outlay of funds for capital projects over the past ten years came to approximately $13 million. At Chapel Hill, it ranged around $300 million with more than half the students. The big difference is that Chapel Hill could do self-liquidating projects. This figure does not include the Hospital. Chapel Hill can do many self-liquidating projects because all of their dormitories are paid for and they have the ability to fund bonds and go forward. NCCU can't because they don't have any money. When Julius Chambers became the Chancellor at NCCU, he found that, in order to repair steam lines to get heat to the buildings, they had to start digging and following the water lines and the steam lines because a blueprint was not available that showed where the lines were. The General Assembly is told that the problem exists because they can't do self-liquidating projects. In the bond issue where everybody was getting to choose, not necessarily what they needed, but what they wanted, Central had to do a dormitory. Here we have a situation where we have a campus, as most minority institutions and smaller schools are, in the University System that don't have the ability to self-fund their programs. Mr. Briggs said he believes the Hospital itself will establish a cap and, while hospital rates have been increasing rapidly, to remain competitive, rates will have to level off.

Mr. Newlin continued. In the early 80s, budgeted and actual enrollment were the same. In 1985-86, when enrollment increased, funding started being above budget, which continued until the last two years. In the last two years, the actual enrollment has been below the budgeted enrollment in terms of full-time equivalent students or those that take at least 12 semester hours. Beginning in 1997, however, the Board of Governors has policies in place on each campus that will require the average full-time undergraduate student to take 15 hours or more per semester.

Mr. Newlin pointed out that the cap of 18% of out-of-state students was only on incoming freshmen. Right now there are approximately 14% of out-of-state students in the whole system. North Carolina charges out-of-state students what our students would be charged if they went to their state. North Carolina charges a little more than average. There was concern that the State appears to be subsidizing students from out-of-state.

D.G. Martin, from General Administration, replied that there are all kinds of reasons for this. First, there is an educational benefit in having our students come in contact with a broad group of people, rather than just those from North Carolina. Second, these students who come to North Carolina for an education often remain here and eventually become taxpayers. North Carolina actually has gotten these students' K-12 education free because they came from another state.

Graduate students who are also teaching assistants get what is known as tuition remission, which means they pay the in-state tuition rate. There is an additional $15 million in the budget for tuition remission, and approximately 50% of graduate students from out-of-state get in-state rates.

UNC Budget Process
L. Felix Joyner, Vice-President for Finance, UNC

Mr. Joyner explained the budget process for the University. He said the statutory basis under which the Board of Governors, the Legislature, and the Governor's Office functioned first was based on the old Executive Budget Act. In 1971, the General Assembly enacted new legislation with regard to financing for the Board of Governors which subscribed to the Executive Budget Act as it relates to all state agencies. Secondly, it established some differences in the way of handling the University's budget. At that time, the General Assembly was being besieged by lobbyists, by at least eleven groups of people. The University had six demonstration campuses and was generally represented by the President and some of the Board. The other ten institutions had separate boards and all of them came straight to the Governor and the General Assembly at budget time. There was a fairly sustained run at the General Assembly. It is fair to say that this had been a growing frustration for the General Assembly. One of the things it did was to tell the various groups of lobbyists that it wanted a single budget request, essentially submitted by a single agency. The Board of Governors was established partly for this purpose.

There were two principal characteristics which the General Assembly wanted. One was a single request, and the second was that it should be divided in three broad parts. The first, the continuing operations budget, later became the base budget. The second request was for academic salary increases, requested on behalf of all institutions for their faculties and all other people classified as exempt from the Personnel Act. The third part of the budget was what became the expansion budget, which is addressed in two parts, capital requests and current operating.

Given that set of directives, there was also a set of directives to the Legislature, the restructuring of higher education. Appropriations for continuing budgets would be made directly to the institutions. The appropriation for academic salary increases would be made in one lump sum to the Board of Governors for subsequent distribution. The same general directive was provided with regard to the expansion budget. That was, the lump sum would be appropriated to the Board. It was, however, very difficult to deal programmatically with capital improvements. A project can't be described without noting which campus it is. For that reason, the statute was amended to allow the General Assembly to specify uses that would be made of the capital improvements fund. Almost without legislative instruction the General Assembly, Office of State Budget, and the Board of Governors arrived at a system to organize the remainder of the requests, for programs such as Agricultural Extension service, UNC Hospital, etc.

The method of putting together the budget for The University is basically the responsibility of the Governor and the Office of State Budget Management. The development of what it costs to continue previous operations needs to coincide with the kind of budget request that come to the Legislature from a lot of state agencies.

One minor difference in the continuation budgets as put forward by each institution is they did not account for or take into consideration any increases in enrollment. So the continuing budget reflects what it really costs to teach the same number of students for the coming biennium the way it was for the current year. The additions come to that budget from the costs of maintaining and operating new facilities limited to the last few years, costs of inflation, utilities, etc. Increases in the continuing operations budget have been relatively small. Mr. Joyner pointed out that, over the last two years, there has only been a $30 million increase.

The academic salary increases request is developed during the period of time that the President and the Board are considering budget requests, and forwarded to the General Assembly in October. The President and the Chancellors must come to a general consensus on what appears to be a reasonable request for salary increases for faculty and staff. Coming into that equation will be consultation to the Board on the personnel contingency list, consultation from the Budget Committee and consultation from Department heads and the Faculty Senate, plus a number of University organizations that will have input in the development of a budget request.

Mr. Joyner said the Board asks for a percentage increase in the base budget and then asks the General Assembly to give the Board and the Institution the ability to individually raise salaries more or less than that. In 1993, the University got $6 or $7 million to stop the "brain drain" and then, last year, another $10 million. Each institution made individual faculty recommendations to the Board and the President; there was no across-the-board distribution of that set of resources.

Mr. Newlin added that the University has the authority to differentiate between good teachers and others and has the authority to differentiate between disciplines like Business and Accounting, for example, versus English where there is higher demand. The General Assembly has given the University the flexibility to make those differentiations.

When asked how excellence in teaching was awarded, Mr. Joyner replied he believed more flexibility could be afforded to people who are closest to the situation, and that is at the institution level. That is the level to determine which faculty members should be rewarded.

<u>Enrollment Increase Funding and Funding Per Student</u>
<u>Jim Newlin, Commission Fiscal Analyst</u>

Mr. Newlin reminded the Commission that one of its charges is to look at the equity of funding by taking a look at the missions of the institutions and the different academic programs. The continuation budget is basically that; in many cases, other than marginal changes, those budgets are based in some degree on what those campuses were when they entered the system some twenty years ago. There have been a number of changes to get the faculty salaries equitable, to get tuition equitable, but continuation budgets are different. That is an issue that the Board itself has debated for a considerable amount of time. The amount of money allocated per student is significantly different depending on which campus you're examining. It is difficult to get equity in funding because the continuation budget is not built on a per FTE basis; only the increases are.

Chancellors' Viewpoints on Equity of Funding
Chancellor Larry Monteith, North Carolina State University
Chancellor James Leutze, UNC-Wilmington
Chancellor Julius Chambers, North Carolina Central University

When asked if he believed that, with regard to costs, NCSU is treated fairly as it relates to faculty salaries, capital expenditures, in the way it is reimbursed by the Board of Governors or by the General Assembly, Chancellor Monteith answered he was extremely pleased with the things that the General Assembly has done for NCSU over the years which has allowed competitiveness of faculty. He feels, however, that the school has gone down the last few years, because of its inability to be competitive in faculty hiring. Also, the library has not been funded adequately as NCSU has grown and developed, and there is not enough money for need-based scholarships.

When asked how the campus could better serve the State, Chancellor Monteith said the number-one priority should be to create a lifetime of opportunity for the young people who come there. Having said that, which is the basic mission of all campuses, NCSU takes science and technology and puts it to work through the efforts of graduates and through programs on campuses. But we are facing the need for our institutions to do an even better job. In our State there are three or four things that are really plaguing us. Our per capita income needs to increase. This would require changing the job mix in our State and creating education for people who will be prepared to fill this job market. Starting new kinds of industries, like SAS (founded by Jim Goodnight, a graduate of NCSU), needs to be done a thousand times. Bringing the right kind of industry mixes to our state will help us make that transition. It also helps to try to educate and avoid negative impacts on the environment. How are we going to confront a doubling of the population, the usage of our land masses and resources so that they might double again someday? Since it helped fuel that development in forestry, agriculture and manufacturing, NCSU plays a very unique role in trying to educate and avoid as much of that impact as possible through research, extension, and public resource activities.

Chancellor James Leutze quoted Edward Kidder Graham, who said, "Boundaries of the University are the borders of the state." That is how the university should function. The first role should be in the classroom, dealing with students, educational problems and turning out educated citizens who compete for and get jobs. We also have a responsibility to do things in our region. UNC-W is in a poor region of the state. Figures recently published on infant mortality rates indicate that some of the counties surrounding New Hanover are almost double the national average and are on a par with third-world countries. He feels it is the role of UNC-W's School of Nursing and volunteers to go out and help with these kind of problems. There are also a number of economic issues in this region. He said the faculty is encouraged to learn how the University can cooperate to learn what UNC-W's Business School might be able to do through public service to assist in training people for employment.

Chancellor Leutze said that the problems at UNC-W continually worsen. His comments focused primarily on the issue of funding for admission per FTE students. Several aspects of the current funding process have not been fully responsive to the needs of UNC-W and possibly other relatively young campuses that have experienced rapid growth. During the next decade, estimates predict that all North Carolina campuses will face growing demands for increased numbers of students. For this projected enrollment growth to be accommodated, the Chancellor believes that institutions such as UNC-W and UNC-C will need help in being able to deal with those additional numbers of students. He said he wanted to make it clear up front that he is not questioning the necessarily complex funding formula used by the Board of Governors and General Administration. Instead, he wanted to talk about the effect of the formula on UNC-W. The formula for enrollment changes at UNC-W has provided new faculty positions without the support dollars that are essential for future success.

There is a $5000 difference in the amount funded for in-state FTE student and some students at other institutions. Why? As Chancellor Monteith pointed out, NCSU is a research institutions with more graduate programs and graduate programs require more dollars. Some are Black institutions that historically have been underfunded and there has been, over the past 15 years, an effort to bring these institutions along and provide them with more funding. Over time, older and established institutions have brought forth programs, that perhaps were funded on a yearly basis for several years and eventually incorporated into that university's budget. Consequently, without anyone knowing or wanting this to be this way, older and more established institutions get more dollars. They have more programs that have become institutionalized than have some of the other institutions. Relatively young universities, such as UNC-C and UNC-W, are disadvantaged in this process because they haven't had time to incorporate some of those programs. The Consortium for the Advancement of Public Education is a program that UNC-W has institutionalized and brought into its budgetary process. It is now a part of the University's continuation budget and has increased some of the funding that UNC-W gets.

UNC-W has grown at a rate of about 22.48% over a period of five years. Adding to problems at UNC-W, given the growth cited earlier, the percent differential in FTE funding between UNC-W and other institutions is increasing. The extent to which UNC-W is behind others is, instead of normalizing, actually increasing. The General Fund appropriations per in-state FTE student for UNC-W compared with other UNC schools, shows that UNC-W is at zero.

There are a number of reasons why the funding procedure has changed. One is that, during the last two years, the University system enrollment as a whole has been below the budgeted amounts. In Wilmington, however, that has not been the case. Actual FTEs to projected FTEs is one factor. Others, for example, include additional library funding given for the past two year which the General Assembly split that between recurring and nonrecurring. When the campuses made requests for library funding, the General Administration did not make that differentiation. Some campuses needed more money in operating funds for personnel while other campuses focused on books. When these are funded with nonrecurring money, the distribution tended to be toward those who had focused on books. That is the type of factor that enters into this picture.

Mr. Newlin observed that the funding formula changes from year to year and that North Carolina is not a formula-funding state. There are certain principles of budgeting for higher education. One is that graduate programs cost more than undergraduate programs. Juniors and seniors cost more to educate than freshmen and sophomores. There are high cost programs and there are low cost programs, such as engineering versus English. The final principle is that students from lower socioeconomic backgrounds require more in student services to keep them on track to graduate, more than students who come from higher socioeconomic backgrounds.

Chancellor Leutze said we need to do more at the freshmen and sophomore level in order to keep those students in school and to give them special attention. He said he wanted to talk about effects. As a result of the funding that UNC-W is receiving, academic support services such as admissions, records, financial aid or computing, as well as faculty development, have less funding. There are also major needs in areas of institutional support and student services. To meet only the most pressing of these needs, UNC-W has to "rob Peter to pay Paul" by using budget flexibility.

UNC-W is at the bottom with 809 admissions for every staff member. Total salary and wage expenditures for admissions and records offices per FTE student also reflect that UNC-W expends $313 per student, and other institutions expend considerably more in that type of activity. Students per microcomputer at UNC-W is also well above the number at other institutions. UNC-W is above the nationally accepted maximum standard.

Demographics indicate that North Carolina is at a low in high school graduates at about 58,345 in 1994. By the year 2010, it is estimated that there will be an additional 20 thousand graduates from North Carolina high schools. The UNC campuses that are most able to grow have been growing, but this growth, coupled with historical trends has created some problems. The lack of sufficient funding to academically support additional students is a disincentive to grow. UNC-W has the room, the space, and it wants to grow. But in fact, there is no incentive in the numbers of funding dollars to accommodate that growth.

Chancellor Leutze said while UNC-W was a regional university, half of its student population is drawn from other areas of the state. It is up to each institution to be the best it can be. He said UNC-W wants to be the best, medium-sized, liberal arts undergraduate teaching institution and it wants to be the best in the Southeastern United States, not just in North Carolina.

Considerable discussion followed concerning the data on the projected increase in high school graduation rate. The state will have to educate more kids at existing universities or somewhere, if we just want to maintain the same literacy rate that we have now. North Carolina is now 3% behind the national average in percentage of college graduates. The problem appears to be that growth at UNC-CH and NCSU is now limited. Other schools like UNC-A do not want to grow and other institutions like UNC-C and UNC-W are rapidly growing. The relationship between the Community Colleges and The UNC System should be articulated. The state also should consider utilizing private colleges and universities as a resource for this growth.

Chancellor Chambers said he purposely did not bring charts in an effort to demonstrate a constitutional violation and to point out some problems that North Carolina Central and other historically black colleges are experiencing in the present system of state allocation of resources. He said the state and country have a history of discrimination that we cannot ignore. When looking at the budget, he suggested that the Commission continue to be aware of that.

Secondly, there have been major changes in the way we support higher education in the state, and those changes have been very beneficial to historically black colleges and universities including North Carolina Central. There are still major problems to be addressed in the system. The Legislature and General Administration have made great strides in addressing those problems.

He said if he had prepared charts today comparing funding allocations, these would reflect that NCCU is being allocated money on an equitable basis. The General

Administration, particularly since the late 70s, has tried to do things to create funding allocations for institutions. There are things, however, that occur that continue to pose real problems for the University and the state. One of the first problems that North Carolina faces is the failure to decide on the mission of the 16 institutions.

One can focus on geography in certain institutions and talk about those institutions serving certain needs in a particular geographic area. With NCCU right in the midst of Chapel Hill and Duke, that obviously is not going to fit. Nor would it fit in Greensboro. So geography doesn't explain what we're talking about.

If we are talking about undergraduate and graduate programs, that isn't going to be a good explanation. Chancellor Monteith mentioned earlier, its major effort to develop an undergraduate program. North Carolina State University has the resources to do that. Chapel Hill is eight miles away with an undergraduate program. NCCU competes with programs at NCSU, UNC-CH, and Duke, which puts NCCU at an extreme disadvantage. If we look at Elizabeth City State or Fayetteville State or North Carolina A & T we have the same problem. One should ask what is the mission of each of these institutions and decide how to fund those missions with the limited resources allocated. Because of the lack of defining the mission, all institutions are competing with one another. NCCU doesn't have the resources to compete with other campuses. While NCSU and UNC-CH actively recruit minority students, NCCU doesn't have much success in recruiting minorities. It just can't compete.

Chancellor Chambers was appalled at the physical campus when he first came to NCCU. Facilities have not been maintained and programs are limited because of resources. He feels there is no explanation for this but race.

He thinks that once a person gets an undergraduate degree from NCCU or another small college, that person should be automatically admitted to a graduate school or Ph.D. program at NCSU or UNC-CH. He questioned whether there are true exchanges among faculty members and whether the State is really operating one university system or 16.

NCCU has a business school and law school. In 1947, they built half of a gym that they are now trying to find a way to complete. They were told to look toward self-liquidating projects but find they are limited in the amount of money they can raise for self-liquidating projects. They are told to raise self-liquidating fund to $6 million, but the gym will cost $10 million to complete. A Student Union Building will cost $12 million. Despite an acknowledged need, NCCU is stymied. There are many resources throughout the System which could be used to enhance other facilities.

Chancellor Chambers asserted that early history reflects blatant discrimination in the way institutions have been funded over the years. The results of that discrimination continues in 1994 and can be felt and seen at every historically black institution in North Carolina. North Carolina has made major strides in trying to address problems at HBCUs and there have been some good changes. NCCU didn't get capital funding until 1993, so despite the acknowledged differences in the facilities in 1966, those problems were not addressed for a long period. The results of that still exist in 1994.

Third, we are one university and we can do more in our missions and our programs, in our faculty, in our students within the University System to address many of the needs and concerns that have been previously raised during this session. But it cannot be done by thinking of 16 separate institutions. We must look at it as one. We must also take into consideration the other educational institutions that can and are playing a vital role in helping to educate our children.

Chancellor Chambers concluded by commending the Commission and the Legislature for raising this issue. He said it is difficult in 1994 to get people to talk about racism although we see it breaking out all around us.

Discussion followed with regard to mission statements. Chancellor Chambers said it is crucial that the mission of each institution be articulated and then funded properly. As missions are decided, we must make sure that we are accommodating all students. Chancellor Chambers said he felt the missions should be decided by the Board of Governors.

He said he wanted to see NCCU become the principal undergraduate liberal arts program in the region with cooperative programs and collaboration with other institutions in the state that are servicing graduate and professional programs. Being in the midst of the Research Triangle area, he felt that NCCU should have a major role in research. That is crucial because there are too few black scientists; too few blacks involved in medical research that affects minorities differently. It also is crucial that the law school continues. And, there is a great need in the area for the business school to work to try improve employment opportunities.

One member commented this is probably the most important thing the Commission will discuss. If NCCU became the University of North Carolina at Durham, the first thing the Board of Governors would do would be to improve the quality of that campus. Forget the race part of it, the state is putting lots of money into five institutions that are not the quality of which North Carolina can be proud. Emphasis should be turned to repair and restoration on all of the campuses.

Expenditure of Overhead Receipts from Contracts and Grants
Chancellor Paul Hardin, UNC-Chapel Hill
Chancellor Larry Monteith, North Carolina State University

Chancellor Harding said the Legislature has shown remarkable fortitude and patience and clear concentration and attention. Since he has been at UNC-CH, the General Assembly has done the following things: Forced them to make painful cuts during the 1989-90 Sessions; had the guts to raise taxes which led the way to good economic recovery; and gave the University financial responsibility legislation which allowed funding flexibility. It also reallocated overhead receipts, and approved a bond issue and helped to get the referendum approved by the voters of North Carolina in a tough environment. In the last Sessions, the General Assembly funded faculty salary increases which made the University system more competitive. He also wanted the Commission to know that the University does allocate faculty salary pools on a merit basis. The Board of Governors has joined with the General Assembly in not imposing very many across-the-board restrictions. He related a situation in which Chapel Hill was in danger of losing an excellent faculty member to Duke University to become a department chairman. Duke made a bid for him, upping the salary offered by UNC-CH by $11,000. The professor decided to stay at UNC-CH. One reason he stayed is that he was assured that overhead receipts could be used to replace the foreseeable retirement in the faculties.

The main point is exactly how are we spending overhead receipts that come to us as a result of our faculty in competing for externally funded research. This is mostly federally funded projects. Chancellor Hardin said that when he came to UNC-CH in 1988, it had done $85 million in externally funded research. Then the General Assembly began to reallocate that research overhead and let the University keep more. When the books were closed in fiscal 1994, UNC-CH had done $244.6 million in externally funded research.

Chancellor Monteith followed with his comments on indirect costs. Discussion followed regarding networking among campuses, and the articulation of students between campuses. Chancellor Monteith said that NCSU has one program that is a national center involving Chapel Hill, Duke, UNC-C, NC A&T working as partners. Networking among the campuses is what makes this successful.

Library Funding
Jim Newlin, Commission Fiscal Analyst
Dr. Mary Reichel, University Librarian, Appalachian State University, and Chair, University Library Advisory Council

Dr. Reichel said libraries receive enrollment increase monies, of which some is allocated to the collection budget, but some is not indicated to any specific purpose. Libraries can use that money to create new positions.

With respect to comparative funding with other states, Mr. Newlin stated that North Carolina is ranked as fifth among the 50 states with regard to funding. The second comparison is the amount of appropriation per $1,000 of personal income in a state. North Carolina appropriates $13.28 of that amount for higher education, which includes community colleges. Another source of information prepared on national data by Research Associates of Washington and Virginia shows that North Carolina ranks sixth in allocations to public education. In the state payment effort or rate of appropriation per student to tax revenue per capita, North Carolina ranks first. Statistics on education appropriations per student for 1993-94, show that North Carolina ranks ninth. Twenty percent of total appropriations go to research agriculture and medical appropriations, which is higher than the national average. This would indicate that North Carolina is making a good effort in funding research. North Carolina ranks 43rd and 44th in terms of tuition per FTE student including in-state and out-of-state sources. In the "family payment effort," the state ranks 43rd in affordability.

For total financial support, which includes appropriations and net tuition per FTE student, North Carolina ranks 19th. For resident undergraduate tuition and fees, last year, North Carolina ranked 50th compared to other states. For resident undergraduate tuition and fees at comprehensive campuses, North Carolina ranks 46th. Mr. Newlin observed that North Carolina is very affordable. Higher education in the General Fund Budget in North Carolina in 1986-87 at being just under 17.4%. In 1994-95, that has dropped over 4% to 13.2%. Over that period of time, public school funds also have dropped. This is consistent with the rest of the country. Expanding demands for healthcare, including entitlements such as Medicaid, prison construction, and crime prevention, are the main reasons for declining appropriations for higher education.

Capital Funding, Repair and Renovation, Equipment Replacement
Jim Newlin, Commission Fiscal Analyst

Mr. Newlin noted that the total amount of Capital Funding is a little under $1 billion, of which $836 million went to the 16 campuses and the balance to the hospitals and other entities. Discussion followed concerning the fact that nobody prioritizes the needs of projects at the different campuses. When the General Assembly gets a list of projects, they are not listed as which projects are the most critical for a particular campus. Dr. Little said the campuses have the first "shot" at deciding when they submit their enrollment projections. For the long term (five-year plan), it is an institutional choice. For instance, UNC-Chapel Hill and N.C.S.U. have decided not to grow any larger. Several members emphasized the need for a system plan developed by the Board of Governors.

Mr. Gary Barnes said he thinks the idea of linking capital projects to enrollment growth is logical, and he doubts anyone at the University system would disagree. The problem is producing reliable predictions for projections for enrollment growth. So many factors outside a university affect the growth. For example, there is a lot of change from one year to another on the prediction of high school graduates. The approach typically taken is to define participation rates and potential students for each campus. The economy makes a difference in participation rates. To tie capital projects to enrollment projections may be way off. Mr. Barnes does not know if this would be an improvement over the current system.

Members, however, replied that there ought to be a way, statistically, from birth rates and everything else, to be able to tell essentially an estimate of what the student body of the whole University system is going to be 15 years from now -- not just five years. Mr. Barnes said that what they see in enrollment patterns results in self selection more than it is institutional selection. Most of the campuses have capacity to grow.

Historical data (number of applications) could change significantly. When asked if the different "trends" of interests of students could have any effect on long term projections, Mr. Barnes said they do consider specific programs to some extent. They are constantly having to modify to accommodate the growth in one department versus another department.

Mr. Jones, President, National Center for Higher Education Management Systems, said what is being discussed is the difference between projection and policy: How big, if left to their own devices, will institutions get versus how big does the State want them to get. Also, what is the role of the university versus the role of the community colleges. Where is this decision being made, if at all? Members answered that in the absence of an overall plan for growth, capital needs that are carefully prioritized on a set of criteria and policy, the decisions about how the money is to be spent are made politically. There was a plan at one time, but not any more.

The State is looking at $828 million of capital requests for the next biennium. We are at a low point with our high school students. We should be prioritizing and planning for the next 10-15 years because the General Assembly will have tremendous demands made upon them. We may not have the money. We need to work together and begin planning.

Mr. Felix Joyner said enrollment and projected enrollment play a big part of the consideration that goes into the capital improvements plan. However, it is far from the only consideration. He doesn't see any great problem of the University having been prepared to respond to the needs of the people. It may be the choice of one institution to not grow, but it is ultimately the Board's decision to accept that institution's choice.

Mr. Joyner said they would not need any more money for about six years if they had the $828 million capital requests and $300 million bond money. When asked would we then be like California where the state university system has closed its doors, Mr. Joyner replied that for the next decade he believes we would not turn down any qualified student.

Base/Continuation Budgets; Incentive/Performance Funding; Approaches to Capital Budgets
Mr. Dennis Jones, President, and Mr. Peter Ewell, Senior Associate
National Center for Higher Education Management Systems (NCHEMS)

The speakers announced that they came prepared to think of ways of budgeting and resource allocations in the context of planning and policy, as they are interrelated. In the absence of a plan, the budget is the plan. It gives all the clues and directions of what is possible and legitimated. If there is a plan, but it is not connected to the budget, the budget is still the plan. There are at least two levels of planning, resource allocation, budgeting, assessment and accountability. One level is institutional. How do you get the institutional and state priorities to work together? Historically, budgets are built, if looking at the relationship between the state and institution, by deciding what is adequate and what is equitable.

The approach to resource allocation is the strongest lever for changing direction. The corollary to this is that all resource allocation mechanisms have incentives built into them. Quantity versus quality then becomes the issue. Because money has to be spent by the end of the fiscal year, "spend it or lose it" may not be the wisest way of utilizing the money.

When asked, Mr. Jones said that the federal government has a lot to say about North Carolina's university system. In looking at research money and the incentive system, this is where the big discretionary resources of these universities are. This is where the entrepreneurship money is for higher education -- in federal research grants.

Mr. Jones said one of the things he kept hearing at yesterday's meeting was, how do we calibrate the base budget for this state for the various institutions? Are we convinced that that calibration has been done and what has happened over the last "x" years with growth (and decline)? In comparing institutions, they may have inadequacies but don't necessarily have inequities. Adequacy is relative to need -- equity is the question that says, "How far from the need am I"?

The base budget should include the funds to maintain the existing stock of assets. We want to get to the point that we do not appropriate renewal and renovation funds. This is part of the base budget of the institution. We should be putting between 1 1/5 - 2% of the replacement value of the physical plant into renewal and renovation every year. Until we get to where institutions can do this, we will have a problem. New initiatives and state purposes should be where growth is attached because this is a policy decision ultimately.

In talking about assets, Mr. Jones said all were discussed at yesterday's meeting: buildings, equipment, faculty (how much investing in faculty), and program review. Another asset should be the maintenance of the student body, image and reputation.

The history of capital budgeting in most states is such that it is up to the Legislature to put out funding for renewal and renovation. If the Legislature does not do this, the institutions can walk away from this problem and say, "This was not my job." (This was Mr. Jones' response to a question asked about Chancellor Chambers' statement that his campus had to close buildings because of lack of funds for renovation.) Mr. Jones thinks it should be the responsibility of each institution to maintain its buildings. This can be accomplished by including this renovation money in the base budget of the institution.

Mr. Jones confirmed that a lot of states, including North Carolina, balance their budgets with the university funds. The GPAC study showed that by the year 2000, we are going to have a structural deficit -- a financial crisis in North Carolina, even without a recession. (It is inevitable that we will have another recession). What are we going to do with our universities -- will we fall further behind in maintenance, repairs and capital? Do we leave this for a crisis to let future General Assemblies handle? It is important to talk about this before it happens -- perhaps in this committee. We need to try to make sure that we stay ahead of the looming crisis and be able to deal with it when it comes and in a more responsible manner. We do not want a crisis in North Carolina. We do not want to be in the position that California is in at the present time. Another example is Virginia where the cost of tuition has increased dramatically.

Mr. Jones asked what was the link between higher education and external groups? Are there parts of the economy that the State wants to invest in and encourage because they serve the State's needs? There are states that are doing this explicitly. He has heard from the Board of Governors that they are looking at: growth, K-12 education and undergraduate education.

Next, Mr. Jones gave examples of what some states are doing to achieve incentive funding. The final set of rules Mr. Jones wanted to give was that the pot has to be big enough that it cannot be ignored. The rules should be that everybody who should play, can play. For example, when talking about research funding, the institution should be in the research game.

There should be some small set of funds (2-3%) that is for special purpose funding. Equipment renewal should not be placed in special purpose funding. This should be factored into the base part of the institutional budget. In going back to the beginning, Mr. Jones said if the State is going to have special purpose funding, make sure it knows why.

Sixth Meeting -- December 19, 1994
"Quality Undergraduate Education"

Preparing Teaching Assistants
Dr. Debra Stewart, Dean of Graduate School, North Carolina State University

Dr. Stewart described how NCSU prepares its teaching assistants. When she concluded her remarks, considerable discussion followed. Members discussed constituents' concerns about teaching assistants who could not speak English. Dr. Stewart noted that the program at NCSU requires graduate students to achieve a minimum score on a test that measures English speaking ability as a prerequisite to admission to the graduate school. She said the reality is that international students are extremely hardworking and make some of the best Teaching Assistants. She added, however, that language proficiency is essential, and there are now mechanisms in place to ensure that TAs can teach effectively.

Dr. Stewart, in response to a question, said that about 60% of graduate students at NCSU are from out-of-state. Teaching Assistants receive a stipend of $11,000 for teaching 20 hours a week on a 12-month contract period. This stipend is in addition to any tuition remission that the student may receive. She added that 90% of all graduate students in competitive programs (from out-of-state) are on stipends of some kind. They are either Teaching Assistants, Research Assistants, or Fellowships. She said there is a limit of 515 tuition remission spots at NCSU and that the average amount of tuition remission is about $7,000. Dr. Stewart said, however, some students, for example, who are in electrical engineering could receive as much as a $16,000. The total package for the out-of-state student could be as high as $25,000.

She added that not all TAs teach courses; some are laboratory assistants, etc. If the TA teaches physics, he teaches one three-hour course. If the discipline is English, however, the preparation time differs and the TA could have two to three three-hour courses.

There was discussion relating to the number of North Carolina students admitted to the graduate programs at UNC-CH and NCSU. Dr. Stewart told the Commission that no North Carolina student, whose grades are competitive, is denied admission. Members questioned this statement because some of them have heard that North Carolina students were not being admitted to graduate programs because UNC-CH is seeking an international program. Dr. Little said that in some instances North Carolina students are advised to go elsewhere so they can get a different kind of experience. Dr. Stewart responded that not every program is nationally competitive, that it depends on the discipline. She added that unless funding is increased for future expansion, the University will be unable to admit every North Carolina student that applies. When asked why out-of-state students were admitted before North Carolina students, Dr. Stewart responded that perhaps there could exist a "qualification difference."

Mr. Newlin told the Commission that in all the graduate programs at NC State, 30% are out-of-state students, not 60% as previously stated. In doctoral programs, the overall is 41% out-of-state. In 515 graduate assistantships that are paid for by the state by tuition remission, approximately 35% of those students from out-of-state get tuition remission. At Chapel Hill, the number is just under 40%, including graduate and first professional, which include the Vet School at NCSU, the Law School, the Medical School and the Dental School. At Chapel Hill last fall, based on that headcount, approximately 40% of the out-of-state graduate students got tuition remission. At NCSU last fall, admissions in the graduate programs for in-state students was 64% of the applicants. For out-of-state students, 39% was accepted. At the Law School at Chapel Hill for last fall, only 20% was from out-of-state. Overall there was a 46% acceptance rate. The numbers indicate that in-state students at NCSU are accepted at a much higher rate than out-of-state students.

Characteristics of a High Quality Undergraduate Education; Measuring How Undergraduate Education Meets These Characteristics in Each Institution; How to Create Incentives for Those Institutions to Pursue Undergraduate Education with These Characteristics; Ways to Measure Progress in the Delivery of Quality Undergraduate Education at the System Level
Dennis Jones, President, and Peter Ewell, Senior Associate
National Center for Higher Education Management Systems

Undergraduate education is a topic that is useful to consider in the framework of statewide goals and of budgeting incentives to work toward those goals. It illustrates many of the steering concepts, or the kinds of incentives that the state wants to put in place with regard to some undergraduate education alternatives. Another thing that is important to undergraduate education is that everybody does it. Although each campus may have its own mission, there are specific characteristics about undergraduate education that all institutions have in common. The final thing to note is that General Administration has put priority on undergraduate education.

Mr. Ewell said the bottom line, in terms of data that is available, establishes the fact that, when talking about UNC, one is talking about undergraduate education. The following points are important when addressing the quality of undergraduate education in North Carolina:

- Most of the action in undergraduate instruction in North Carolina is at UNC.
- About 1/4 of UNC undergraduates attend research universities and experience a distinctive pattern of instruction.
- North Carolina appears to have adequate faculty resources (relative to peer states) to allow excellence in both instruction and research.
- General Administration has identified undergraduate education as a priority area for investment.
- The primary legislative task is to create a set of incentives that reinforce and legitimate this priority. Faculty at four-year institutions, particularly research institutions, seem to focus on graduate education because the incentives are greater.

Mr. Ewell said, with regard to questions of quality, the following are results of national projects that focused on outcomes in measuring what constitutes quality:

- Higher-Order applied problem-solving abilities.
- "Enthusiasm" for learning on a continuous basis.
- Interpersonal skills (e.g., Teamwork, Oral Communications)
- Sense of responsibility for action (personal and collective)
- Ability to bridge cultural and linguistic barriers.
- Sense of "Professionalism"

The following information reflects what business leaders believe to be important characteristics of "High Quality" undergraduate institutions:

- Degree to which institution is "student centered"
- Commitment to instructional "good practices"
- Commitment to assessment and continuous improvement
- Efficiency and integrity of operation

In the 1992 Graduate Perceptions of Outcomes after One Year, there are two notable messages. (See Appendices J-O - Information Regarding Graduate Satisfaction with Undergraduate Education.) One is that students are generally lower in perceived mathematics ability and in the public responsibility area. The other message is that there is a gap between the research universities, Chapel Hill and NC State, in oral communication ability. In most four-year universities, math is not highly emphasized, and math tends not to be reinforced throughout the curriculum.

Discussion ensued relative to the problems of advising and faculty contact at the research institutions. Dr. Carroll, from UNC General Administration, said that one of the major thrusts of the institutional plans for improving the retention and graduation rates for every campus has focused on how to improve and change this situation. Mr. Newlin said it was also part of the request that is put forth in UNC's current budget request. Mr. Ewell acknowledged that in every survey like this that he has seen nationally, advising comes out low. It's a universal problem and perhaps reflects the fact that students may expect a good deal more out of advising than in fact advising is designed to deliver. There may be a weakness in our system when it comes to academic advising. The situation appears to be that a student can get advice if he seeks it, but there isn't anyone to warn of blindspots and pitfalls and to get the student properly oriented at the right time. Mr. Ewell pointed out that there is also tremendous value in having faculty as mentors. Mr. Newlin added that some universities have gone to professional advisors.

Mr. Ewell summarized the characteristics of 'good practice' in Undergraduate education: (i) high expectations; (ii) coherence in learning; (iii) synthesizing experiences; (iv) integrating education and experience; (v) active learning; (vi) ongoing practice of learned skills; (vii) assessment and prompt feedback; (viii) collaborative learning; (ix) considerable time on task; (x) respect for diverse talents and ways of learning; and (xi) frequent student-faculty contact; (xii) emphasis on the early years of study. He said the following are two common approaches to policy of quality improvement in higher education: (i) inducing local good practice; (ii) decentralized focus; (iii) assess against own goals; (iv) invest in innovation; (v) assuring quality and maintaining standards; (vi) centralized (comparative) focus; (vii) assess against common goals; and (viii) invest in known good practices and technologies.

The following are a number of different ways in which states at many levels have operated with regard to some specific levers to promote positive change:

(1) Direct Intervention
   a. Through mandate
   b. In curriculum/instructional practice
   c. In faculty assignment and workload
(2) Fiscal Incentives
   a. Performance Funding (Funding the Outcome)
   b. Categorical Funding (Funding Good Practice)
   c. Grant-like" Investments to Develop New Approaches
   d. Funding the Client
(3) Accountability Measures
   a. Institutional Assessment Mandates
   b. Performance Indicators
(4) Technical Assistance
   a. Disseminating Good Practice
   b. Statewide Conferences

Mr. Ewell said some states have been successful in using a combination of these.

Direct intervention is rare, but sometimes happens. Florida, for example, has a rule which mandates that writing be taught in the first year of instruction. More common are directions about faculty workload assignment. These don't tend to work well and tend to be subversive.

The more promising ones are the combination of fiscal incentives and accountability measures, really pulling the two together as a package. New York is using performance funding, funding a particular outcome; that is, using the number of degrees granted as well as the number of students in the institution. Categorical funding, spending money on a particular destination is another. This would include the focus on problem with advising. One of the things that categorical funding needs to be accompanied by, is the question of what difference it will make.

Mr. Newlin wondered how, with budget flexibility, could the Legislature make sure the University is using the money for these specific things. There are only two strategies. One is accountability, to follow the trail of the money. The other is to look at outcomes to see to what degree the investment paid off. This would have to be accompanied by the data that explains the investment and the problem that needs to be addressed. The Legislature could determine to what degree this goal can be accomplished given the investment.

While the first two incentives are very directive, there is also "risk money," which uses "grant-like" investments to develop new approaches to improvement. There are few instances where funding the actual consumer is an approach. Mr. Jones said that one of these is, for example, to put the money in the "best provider," not necessarily in the hands of the University. This, however, is hard to do in terms of undergraduate education.

The predominate one is pairing categorical funding and grant funding - where the Legislature tells the Board that the funds will be spent on specific things and then find out what some of those things might be for future funding. What is needed is to get to some kind of accountability or performance measures. The following are two approaches frequently used:

(1) Institutional assessment mandates and performance indicators measured against mission.
(2) Performance Indicators -- an example is to survey the alumni, just as UNC-Chapel Hill has done.

One member observed that an example of this type of approach had been used with regard to public schools. The Legislature used Senate Bill 2 to create the same atmosphere as grant-like investments and categorical funding. This allows the schools flexibility to move certain monies around. To get this, the schools had to tell the General Assembly what it wanted to achieve with the money. Mr. Ewell said that, given recent fiscal conditions in most states, there is often less "new money" invested in these kinds of things.

Discussion of budget flexibility followed. When the University system was given budget flexibility, it was unclear that it would be for all 16 institutions, nor did the General Assembly know it would be established permanently. Out of this move, the Legislature is not aware of any "outcome" or improvement. Conversely, when the public schools were given the option of budget flexibility, they had to specify what the additional funding would be used for.

Based on the experience with other states, Mr. Ewell doesn't feel that North Carolina's position is too bad. It doesn't take a great deal of funding to make some of these things happen, perhaps as little as 5%. The Legislature has to determine how to get the most for the dollar. In the future, resources won't be available in proportion to the population. The Commission is not premature in calling these issues to the attention of the Board of Governors. With tax increases being a thing of the past, if the Legislature doesn't address these issues now, there will be future problems.

Members observed that with a new group coming into the Legislature that believes it has a mandate to make some changes and eliminate some things, the Board of Governors may be asked to squeeze resources and make adjustments. If the Commission does nothing more than determine how to measure success in an educational system, it has been worthwhile.

Seventh Meeting -- January 19, 1995

Supply and Demand for Higher Education in North Carolina
Dennis Jones, President
National Center for Higher Education Management Systems

Mr. Jones summarized data put together at the chairs' request that provides background of supply and potential demand for higher education in North Carolina.

Compared with other states, North Carolina has more of its adult population with less than a high school education; less of the adult population with a baccalaureate education. (See Appendix P - Educational Attainment of the Adult Population, 1990.) In comparison with the U.S. average, N.C. has a way to go to be as well educated as other states. This education is not evenly distributed across the counties in N.C. The Triangle area has the highest degree of education.

From now until the year 2008, there is a projected increase of approximately 37% in the number of high school graduates. Relative to other states, (in comparing first time freshmen), North Carolina does not do as well as the northeast and north central states; however, it does better than most of the southeastern states. North Carolina is the most "in-state" state in this comparison. More of our students stay in state than in any other comparison states. (See Appendix Q - Proportion of First-Time Students Enrolled In-State.) This is probably a testimony to our low tuition policy. It is a bargain to go to school in state in North Carolina.

The largest growth in first time freshmen has largely been in the community colleges. (See Appendix R - "First-Time Freshmen Enrollments in Public Institutions" for recent historical enrollment comparisons between community colleges and universities.) Fewer than 1000 students leave North Carolina to go to another public four-year institution. Almost 4000 come to North Carolina from out of state for four-year institutions. Comparing the vocational technical, the four-year university first-time enrollments and community transfers relative to the number of high school graduates, the Triangle area has the highest percentage.

In looking at the history of North Carolina, enrollments have been going up while high school graduates have been going down. When asked, in looking at minority enrollment, Mr. Jones said that participation in community colleges is higher than the high school graduation. Mr. Gary Barnes, UNC General Administration, said that in comparing the percent of black high school graduates in this state who attend the university and the percent of white graduates who attend the university, the percentages have gone up in the last decade, but there still is a gap of approximately 4%. In response to a question, Mr. Barnes said he believes that the proportion of black high school graduates is about 29%. In the four-year institutions, about 20% of the 500 full-time graduate students are black. About 16% of the part-time students are black; about 15% of degrees granted in the four-year institutions are black. There is wide disparity of racial distribution per population in different parts of the state.

An increase in proportion of the students coming to the university are coming as community college transfers. (See Appendix S - Community College Transfers to UNC as a Proportion of First-Time Freshmen.) We have five community colleges who have contract programs, where the University teaches the students for the community colleges in a college transfer program. There are less than 50 community college transfer programs. There followed some discussion as to the mission of the community colleges. In talking about training, it should be to train persons to go into the work place. However, what we are seeing is that more and more of our community colleges are going into assisting the universities to some degree and preparing high school graduates for the first and second years of transfer.

Mr. Jones said we do not have a picture of the overall enterprise. Of the approximately 48 transfer programs in the community colleges, how many of them will the various university campuses accept? Dr. Carroll replied that all were accepted. Several members, however, disagreed and argued that while Dr. Carroll's definition may be correct, most of the universities do not accept all of the community college transfers. Some of the misunderstanding is with some of the community colleges having "quarter hours" and the university having semester hours. It is reasonable to require community colleges that offer college transfer programs to inform students there is no guarantee all the courses will transfer to a university.

One member said, in looking at trends, it appears we are headed toward a system where the community collages are educating more and more the first two years and the universities are shifting gradually toward the last two years of a four-year degree. (See Appendix S - Distribution of North Carolina Resident Regular Undergraduates in Fall 1993.) If a policy is not made, this will accelerate. When asked if this is a part of the University's plan, Dr. Carroll replied they have seen an approximate 11% increase in enrollment at all levels. Mr. Newlin responded that over the last ten years, high school graduates have gone down. In looking at the University enrollment, it has gone up, though slowly over the last two years. They maintain their enrollment by increasing college transfers and increasing graduates.

Members worried that fewer students will be able to afford to go to college simply because of economics, even though we have among the lowest tuition rates in the country. These students will be staying at home and going to community colleges as a result. If they cannot get into a four-year program after leaving the community college, it will be a shame. We will be forcing the University system to take a larger number of transfers. This shift is occurring and has been occurring for at least the past five years. We need a long-range plan.

With regard to baccalaureate programs, N.C. is very strong with math and sciences; less in engineering. North Carolina is the last in the field of Masters of Education (of the 12 comparison states). (See Appendices U & V - Types and Fields of Degrees Awarded.)

Discussion of Commission Findings/Recommendations

The Commission considered four issues connected to the three major charges in the authorizing legislation for the study: (i) should the study be continued; (ii) undergraduate quality assessment; (iii) budget practices; and (iv) teaching and learning.

Much discussion concerned how the work of this Commission fits in relation to what the Governor and the leaders of other groups are doing. Some felt the commission did not have enough time to know if there is a system-wide plan. The General Assembly has to be involved in this. With the dramatic increase in the number of people needing four years of college, someone needs to make sure that the effort is put forth to coordinate it. Other members argued other structures are already in place that could continue or expand this study.

Some members argued that the University system does not want anybody to study the overall system. It should be the "crown jewel" of the State of North Carolina. It is our way out of the poverty in this State and what our people want access to. We are looking at tremendous trends as to what will happen within the next 15 years. How does the University system think they are on such an "island" that they can exist without somebody from the General Assembly knowing what is going on? The more people are educated about what is going on, the better we will be. Anybody who understands the University system will not hurt it, but will try to help it because it is the key to the future.

This commission has two choices: either make findings and recommendations based on what little discussion we have had or continue the study and make some kind of findings to give the new group of members some direction. It became apparent that consensus was not being reached on whether to continue the study.

Members wanted the final report to show some historical perspective. This will put into place the things which have been of concern. The report should make it clear that this Commission is asking the Board of Governors to revisit what they are already doing through different "lenses" to reflect quality of undergraduate education.

At one of the first meetings of this Commission, when capital and enrollment planning were discussed, there appeared to be some concern among members about whether capital planning truly tracked the long-range plans. It was difficult for the members to see how specific capital projects and requests for capital projects tied in to system wide enrollment planning, for example. One possible recommendation would take a step in this direction. Members also were concerned throughout the meetings about pitting research against teaching, stating this is not an accurate picture.

The members debated whether to make any recommendation to maximize space so that we can graduate more students. This can be accomplished by seeing that the students take the number of hours (and make sure the required courses are available for the students) required to graduate in four years. Under the current system, a student who is not taking the normal load is taking up space of another student who would be taking a full required hours to graduate in four years. If a student goes five years, that fifth year displaces a possible freshman.

Another possible finding referred to the equity of funding by the Board of Governors. Mr. Jones said he felt he could say that the funding levels are not as equitable as they could be. Mr. Newlin said that each campus is not funded the same.

For example, if three campuses had 100 new students, they would receive vastly different amounts of funding based on what their base budget is. There is no identifiable reason why this is the way it is; we need to understand these reasons.

There was great disagreement over whether there is a need to state the mission of the University in the statutes. Some felt it was important to do so, particularly to address the primary importance of teaching. Others disagreed because they believe it is the primary responsibility of the University to discover and seek new knowledge, and these members did not want to exclude research and community service.

There also was disagreement over what to recommend concerning the quality of teaching assistants. Most believe that their overall quality is good, but when one is unable to communicate well with students, it is devastating to the students and is a reflection of the other teaching assistants. They agreed that the Board of Governors should review this; however, they disagreed as to whether this is small problem affecting a few campuses or a large problem that affects students all over North Carolina.

Eighth Meeting--February 13, 1995

The Commission held its final meeting on February 13, 1995. After a brief discussion, the members approved this report, including the findings and recommendations, to the Joint Legislative Education Oversight Committee.

FINDINGS AND RECOMMENDATIONS

ISSUE I: UNDERGRADUATE QUALITY ASSESSMENT

FINDING

1a. The Commission finds that the quality of undergraduate education, particularly at the freshman and sophomore year, is a high priority concern.

One of the primary objectives assigned to the Board of Governors and the University of North Carolina by statute is to improve the quality of education (G.S. 116-1). A variety of recent activities by the Board of Governors reflect this important priority as it pertains to the quality of undergraduate education.

The Commission commends the Board of Governors for the development of strategies to improve student learning at the undergraduate level, strengthen undergraduate degree programs and efforts to recruit and retain faculty that exhibit outstanding teaching. These activities illustrate an increased commitment by the Board of Governors to the quality of undergraduate education.

The Commission heard expert testimony that there was a direct correlation between student success in achieving baccalaureate degrees and student satisfaction and success experienced in the first two years of the undergraduate experience.

The Commission also heard concerns expressed from a variety of sources regarding the quality of undergraduate education nationally and its relative importance in higher education.

1b. Since the quality of undergraduate education is a high priority among State policymakers, it is critical that key indicators of the quality of undergraduate education are assessed accurately and regularly. Assessment findings and analyses should be reported in a manner that is useful at the institutional, system and State levels for both administrators and policymakers.

Institutional assessment of University programs and the quality of undergraduate education have been an ongoing response by both the constituent institutions and the University to requirements of the Southern Association of Colleges and Schools and to legislation adopted by the 1989 General Assembly.

Dependable, credible assessment and reporting of the quality of undergraduate education at the institutional and system levels has the potential to act as a useful management tool in diagnosing strengths and weaknesses in undergraduate education at the system and institutional level. Similarly, analysis of undergraduate quality can support crucial policy and resource decision-making among State policymakers.

RECOMMENDATIONS

1a. The Board of Governors should review the current annual institutional assessments to identify specific data currently collected, as well as as additional measures, that may be used to gauge the quality of undergraduate education. The assessments should be revised in order to provide a particular focus on quality undergraduate education. Core quality indicators identified by the Board of Governors should be required of each constituent institution. Data should be maintained for at least a five year historical period so that trends analyses may be conducted.

1b. The Board of Governors should develop regular systemwide analyses of progress in the area of improving the quality of undergraduate education. Evaluation and appropriate reporting of data could be used to provide supporting evidence for State policymakers to justify shifting or expansion of resources in order to support needs identified by the analyses. Analyses should include comparisons of similar student population groups within institutions so that valid inter-institutional comparisons may be made.

1c. The Board of Governors should charge the constituent institutions to conduct a biennial assessment of institutional undergraduate education quality. The institutional assessments should include common core elements designated by the Board of Governors as well as elements developed by, and unique to, individual institutions.

FINDING
2. Constituent institutions that exhibit quality undergraduate education reflected by core system indicators should receive incentive awards.

RECOMMENDATION
2. The Board of Governors should develop a proposal for incentive awards that will reward constituent institutions for performance in the quality of undergraduate education. Core data collected in the system should be the basis of the incentive program.

ISSUE II: BUDGET PRACTICES

The Commission reviewed the funding from the State and other sources extensively, discussed the results of budget allocations for capital projects and operating funds, and considered the budget management flexibility granted by the General Assembly to UNC campuses.

FINDING
1. The Commission has serious questions about the differences in the quality of facilities on the different campuses, which significantly impact the ability of some campuses to attract students and faculty. Some of this problem is the result of projects funded by the institution or their students (self-liquidating projects), which tend to favor larger schools with a higher student base, more private funding, and larger budgets from which to extract funds. These projects appear to contribute to this differentiation of campuses when facilities are compared.

RECOMMENDATIONS
1. Capital Funding
(a) The Board of Governors should review its policies in order to establish a mechanism to distribute funds for repairs and renovations of facilities which uses the age and condition of the physical facilities as a primary factor and which provides more funding to those campuses with inadequate facilities.

(b) The Board of Governors should consider its policies for funding student facilities (which are generally considered to be self-liquidating) on those campuses with a small student body, or with most students receiving need-based financial aid, or both. The Board should consider such possibilities as General Fund subsidies to such facilities (as is done now on a case by case basis), pooling of revenue bond debt issuance to lower the cost and increase the bond ratings, and other options to reduce the potential debt load on these students.

(c) The Board of Governors should develop a capital improvement request process that it can use when it makes its capital priorities across campuses known to the General Assembly. This process should use needs criteria based on mission, enrollment, adequacy of facilities,the functional age of the facilities, utilization of facilities and other objective factors.

(d) The General Assembly should appropriate funds for UNC capital improvements based on the priorities and needs factors developed by the Board of Governors.

FINDING

2. The Commission found that the University ranks high among a number of peer states in research funding per capita, especially in the fields associated with life sciences. North Carolina funds a higher proportion of research from State funds than the other peer states. The Commission heard testimony explaining that research and teaching, particularly graduate teaching, are intertwined.

The State supports, through the General Fund, a considerable amount of faculty time that is used for research, including matching requirements for grants. Because this may amount to 40% of tenured faculty time at research institutions, the Commission is concerned that adequate resources remained for classroom instruction, particularly at the undergraduate level.

RECOMMENDATION

2. This issue should be studied further by the General Assembly, which should look at the amount of in-kind match provided by instructional faculty time,to the effect that all faculty not teaching twelve hours each semester should account for the balance of their time in research, institutional service, student support services, community service, and other budgets. In this way, the General Assembly and the public could see the true costs of various efforts, including instruction and research.

FINDING

3. The Commission finds that the University receives funding for a full-time equivalent (FTE) undergraduate student if a student is taking twelve hours per semester, or a group of students is taking an equivalent number of hours. In order to graduate in four academic years, students would need to take 15-16 hours per semester. During the fall of 1994, 43% of all full-time undergraduates were taking less than 15 hours per semester. The Commission is concerned that providing funding in this manner is a disincentive for the University to graduate students in four years. Most states in the Southern Regional Education Board area use 15 semester hours to determine an undergraduate FTE.

RECOMMENDATIONS

3. Full-Time Equivalent Students (FTE)

(a) The General Assembly should consider funding the University on the basis of student credit hours rather than on full-time equivalent enrollment. This eliminates arguments about full-time equivalent students. The UNC Board of Governors should recommend a system of funding which incorporates this change to the General Assembly.

(b) The General Assembly should consider funding additional credit hours above the current regular term instructional levels for summer school and in off-campus degree programs on a basis more comparable to the current regular term funding. This would utilize campus facilities more fully, and it provides financial resources and incentives to provide higher education opportunities away from the 16 campuses at a time when enrollment growth is looming and the demand for worker retraining is growing. The Board of Governors should recommend a plan to provide for additional educational opportunities in the summer and away from the 16 campuses, including a funding mechanism to accomplish this goal.

FINDING

4. The Commission finds that the funding system for appropriations to each campus for continuing operations, which constitutes the majority of General Fund support to higher education, is not based on identifiable criteria that are measurable or that allow comparisons of adequacy of funding among the sixteen campuses.

RECOMMENDATION

4. The Board of Governors should review the equity of its funding system. The Board could review funding at like institutions, and should consider such factors as size of student body, the costs of the programs offered by each campus, the level of the student body (lower division, upper division, graduate), and the resources required to meet the early college needs of entering students based on their relative preparations for college success. The Board should propose a system of funding based on identifiable criteria to the General Assembly.

FINDING

5. The Commission finds that the perceived ability of the General Assembly to initiate policy change in the University has diminished with the use of budget management flexibility statutes enacted in 1991. While the statutes are a good management tool for the campuses, specific benchmarks for change are not tied to new funding, and new funds may be shifted to other purposes based on campus priorities.

Other states have used specific levels of higher education budgets, generally 5% to 10% of operating funds, as leverage for initiation of change and as rewards for meeting statewide policy goals. This allows campuses to have flexible use of the majority of their budgets, while allowing the State to provide incentives to carry out statewide policy initiatives.

When proper priorities for the University are determined and the General Assembly determines that funding should be appropriated to implement these policies, the Commission finds that these funding mechanisms can be used to implement change in higher education.

(a) All new funding provided to the University could be tied to specifically stated performance goals, with a monitoring system to provide evaluation of performance back to the Board of Governors and to the General Assembly.

(b The ability of the campuses to retain some portion of their reversions each year could be tied to specific gains toward pre-stated student performance goals.

RECOMMENDATIONS

5. The privilege of retaining the management flexibility granted as a Special Responsibility Constituent Institution should be based on more stringent management performance requirements, such as no errors cited in annual financial audits. These additional requirements should be enacted by the Board of Governors, who currently have the statutory responsibility to "enact rules prescribing management staffing standards and internal financial controls and safeguards... that...must be maintained..."

ISSUE III: TEACHING AND LEARNING

FINDING

1. The mission of the University focuses on teaching, research, and service. Traditionally, as have all universities, the University has emphasized teaching, particularly in decisions concerning hiring, promotions, and tenure. Over the past 20 years, however, there has been a gradual shift, both nationally and in North Carolina, towards stressing research, especially in these decisions. Recognizing that the quality of faculty is critical in the pursuit of academic excellence, and that, as a consequence, faculty members must bring a personal commitment to undergraduate teaching, the Board of Governors, in its 1993 report on Tenure and Teaching in the University of North Carolina, adopted specific measures to encourage good teaching within the University. These measures include: the review and revision of mission statements and tenure policies to give explicit recognition to the primary importance of teaching; the review of procedures for the evaluation of faculty teaching performance; the establishment of systemwide teaching awards; support for the establishment or enhancement of centers for teaching and learning; and the adoption of guidelines for the training, supervision, and evaluation of graduate teaching assistants.

The Commission commends the Board of Governors in its continued focus on teaching as being of primary importance in carrying out the mission of the University. The Commission encourages the Board of Governors to continue its emphasis on rewarding teaching ability and effectiveness, particularly in decisions concerning tenure, hiring, and promotions. Furthermore, in order to endorse the importance of teaching ability and effectiveness in carrying the University's mission, the members of the Commission believe the University's mission statement, with an emphasis on teaching and learning, should be set out in Chapter 116 of the General Statutes.

RECOMMENDATIONS

1a. The General Assembly should enact AN ACT TO IMPLEMENT THE RECOMMENDATION OF THE LEGISLATIVE STUDY COMMISSION ON THE STATUS OF EDUCATION AT THE UNIVERSITY OF NORTH CAROLINA TO CODIFY THE UNIVERSITY'S MISSION, WHICH EMPHASIZES THE PRIMARY IMPORTANCE OF TEACHING AND LEARNING. (See Appendix C)

1b. The General Assembly should enact legislation that would appropriate sufficient funds annually to establish a system of teaching awards to encourage good teaching throughout the University system.

1c. The General Assembly should enact legislation in support of the Board of Governors' policy that directs that teaching be given primary consideration in making faculty personnel decisions regarding tenure, hiring, and promotional decisions for those positions with teaching as the primary responsibility, and to assure that the personnel policies reflect the Board's directions.

1d. The Board of Governors should review its policies on peer evaluations of teaching performance to ensure that they apply to all teaching faculty, including those who are tenured.

FINDING

2. The Commission recognizes that the quality of most graduate teaching assistants is good; however, when one cannot communicate to one's students, it is devastating to those students and reflects negatively, not only on all the other teaching assistants, but also on the institutions themselves. The members of the Commission believe that everybody who teaches students in the university system should be able to communicate effectively. The Commission learned that North Carolina State University, for one, has an excellent program that screens potential graduate teaching assistants and assists them in communication and teaching skills in order to ensure their effectiveness in the classroom. The Commission commends this and similar programs, and encourages the Board of Governors to expand them to all the campuses that employ graduate teaching assistants.

RECOMMENDATION

2. The Board of Governors is encouraged to review the procedures used to screen and employ teaching assistants to ensure their ability to communicate effectively in the classroom. As part of this review, the Board may wish to consider the following issues:

a. Whether all proposed teaching assistants and all new faculty should be required to attend teaching workshops before they teach their first classes.
b. Whether there is a need to strengthen the role of faculty who supervise teaching assistants.
c. Whether all faculty should attend periodic teacher training sessions.
d. Whether teaching faculty should be required to have their teaching skills reviewed by established Centers for Teaching and Learning.
e. Whether the English proficiency of all persons offering classroom instruction should be assessed prior to classroom contact with students.
f. Whether undergraduate majors should take comprehensive exams to assess the degree of learning in the teaching/learning equation.
g. If the use of contextual course evaluations would capture the unique aspects of differing disciplines and courses.

APPENDIX A

AUTHORIZING LEGISLATION
SECTION 101.5 OF CHAPTER 321 OF THE 1993 SESSION LAWS,
AS AMENDED BY
SECTION 60 OF CHAPTER 24 OF THE 1993 SESSION LAWS, 1994 EXTRA SESSION

UNIVERSITY OF NORTH CAROLINA EDUCATION STUDY/FUNDS

Sec. 101.5. (a) There is established the Legislative Study Commission on the Status of Education at The University of North Carolina. The Commission shall be composed of 12 members, six Senators appointed by the President Pro Tempore of the Senate, and six Representatives appointed by the Speaker of the House of Representatives. All members shall be appointed within 30 days following adjournment of the 1993 Regular Session of the 1993 General Assembly.

(b) The President Pro Tempore of the Senate and the Speaker of the House of Representatives shall each designate one appointee as cochair. These cochairs shall jointly call the first meeting and shall preside at alternate meetings.

(c) The Commission shall study the following areas:

(1) Undergraduate education at The University of North Carolina, including:
  a. Rewards and incentives for quality undergraduate teaching;
  b. Assessment and evaluation of faculty teaching, and the role of this assessment in the rewards system, including salary increases and the granting of tenure;
  c. Academic support systems for undergraduates, including underprepared students;
  d. The consistent establishment of minimum standards for college-level coursework and the success rates of students in remedial or developmental programs;
  e. Accessibility of higher education to qualified residents of the State; and
  f. Student contact with tenured faculty and the use of teaching assistants;

(2) University funding issues, including:
  a. Equity of funding among the constituent institutions, considering the differences in institutional missions and academic programs;
  b. The effect of budget flexibility on the ability of each campus to carry out its mission in an effective manner;
  c. The impact of allowing campuses to retain a greater proportion of indirect costs reimbursement from research grants (overhead receipts);
  d. Total funding sources available for each constituent institution and each affiliated entity, including institutional trust funds, research grants, gifts, grants, and donations, expenditures for the benefit of the campus by private groups or foundations, and other sources of revenue;
  e. The projected impact of changing the State funding for a full-time equivalent student from 12 semester hours to 15 semester hours for undergraduate students;
  f. Changes in faculty teaching loads and student course loads over the past 10 years; and

g. Affordability of higher education, including existing financial aid programs, alternative methods of providing student financial aid, and various plans for saving for college education; and

(3) University education quality issues, including:

a. The impact and effect of research on the teaching mission of The University of North Carolina;

b. Quality and current levels of services of all the libraries in The University of North Carolina;

c. Faculty salaries and other compensation relative to similar and peer public institutions in other states; and

d. The relative quality of all 16 campuses compared to peer institutions and to changes in quality of each of the 16 campuses over time.

(d) Members of the Commission shall receive subsistence and travel expenses at the rates set forth in G.S. 120-3.1.

(e) The Commission cochairs may contract for professional, clerical, or consultant services as provided by G.S. 120-32.02, may purchase or contract for the materials and services it needs, and may contract with an individual who has an excellent national reputation in the area of evaluating the quality of public higher education to facilitate its work.

The Legislative Services Commission, through the Legislative Administrative Officer, shall assign professional staff to assist in the work of the Commission. The Supervisors of Clerks of the House of Representatives and of the Senate, upon the direction of the Legislative Services Commission, shall assign clerical staff to the Commission. The expenses related to the clerical employees shall be borne by the Commission.

(f) The Commission, with the approval of the Legislative Services Commission, may meet in the Legislative Building or the Legislative Office Building.

(g) The Commission shall make interim reports, as it deems appropriate, to the Joint Legislative Education Oversight Committee and shall make a final report to the Joint Legislative Education Oversight Committee no later than March 1, 1995, at which time the Commission shall terminate.

(h) Upon the request of the Commission, all State departments and agencies, all local governments and their subdivisions, and all institutions and departments under the jurisdiction of the Board of Governors of The University of North Carolina shall furnish the Commission with any information in their possession or available to them.

(i) Of the funds appropriated in this act to the General Assembly for the 1993-94 fiscal year, the sum of one hundred thousand dollars ($100,000) shall be available to fund the work of the Legislative Study Commission on the Status of Education at The University of North Carolina.

APPENDIX B

LEGISLATIVE STUDY COMMISSION ON THE STATUS OF EDUCATION AT THE UNIVERSITY OF NORTH CAROLINA MEMBERSHIP LIST 1993 - 1994

President Pro Tempore's Appointments

Sen. David W. Hoyle, CoChair
P.O. Box 2494
Gastonia, NC 28053
(704)867-0822

Sen. Betsy L. Cochrane
1007 Bermuda Run
Advance, NC 27006
(910)998-8893

Sen. Howard N. Lee
109 Glenview Place
Chapel Hill, NC 27514
(919)942-6528

Sen. Beverly M. Perdue
P.O. Box 991
New Bern, NC 28563
(919)633-2667

Sen. Marvin Ward
641 Yorkshire Road
Winston-Salem, NC 27106
(910)724-9104

Sen. Dennis J. Winner
(Appointed from 8/93 to 12/94)
81-B Central Avenue
Asheville, NC 28801
(704)258-0094

Speaker's Appointments

Appointed from 8/93 to 2/95

Rep. Martin L. Nesbitt, Jr., CoChair
Suite 700
29 North Market Street
Asheville, NC 28801
(704)252-0490

Rep. Anne C. Barnes
313 Severin Street
Chapel Hill, NC 27516
(919)967-7610

Rep. James B. Black
417 Lynderhill Lane
Matthews, NC 28105
(704)847-9938

Rep. Milton F. Fitch, Jr.
615 E. Nash Street
Wilson, NC 27893
(919)291-6500

Rep. Robert Grady
107 Jean Circle
Jacksonville, NC 28540
(919)455-9359

Rep. Warren Oldham
3211 Cumberland Rd.
Winston-Salem, NC 27105
(910)767-6936

Staff:

Ms. Robin Johnson
Dr. Jim Watts
Research Division
(919)733-2578

Mr. Jim Newlin
Fiscal Research Division
(919)733-4910

Clerks:

Janette Lee
(919)733-5806

Elaine Myers
(919)715-2532

**LEGISLATIVE STUDY COMMISSION ON THE
STATUS OF EDUCATION AT THE UNIVERSITY OF NORTH CAROLINA
MEMBERSHIP LIST
1993 - 1994**

Speaker's Appointments

Appointed 2/95

Rep. Robert Grady, CoChair
107 Jean Circle
Jacksonville, NC 28540
(910)455-9359

Rep. Stephen W. Wood
P.O. Box 5172
High Point, NC 27262
(910)883-9663

Rep. Frances M. Cummings
P.O. Box 983
Lumberton, NC 28359
(910)739-6800

Rep. Richard T. Morgan
570 Pinehurst South
Pinehurst, NC 28374
(910)295-4575

Rep. Jean R. Preston
211 Pompano Drive
Emerald Isle, NC 28594
(919)354-6672

Rep. William C. Owens, Jr.
803 First St.
Elizabeth City, NC 27909
(910)335-0167

APPENDIX C

GENERAL ASSEMBLY OF NORTH CAROLINA

SESSION 1995

D D

95-RHZ-013
THIS IS A DRAFT 21-JUN-95 15:53:17

Short Title: UNC Mission. (Public)

Sponsors:

Referred to:

A BILL TO BE ENTITLED

AN ACT TO IMPLEMENT THE RECOMMENDATION OF THE LEGISLATIVE STUDY COMMISSION ON THE STATUS OF EDUCATION AT THE UNIVERSITY OF NORTH CAROLINA TO CODIFY THE UNIVERSITY'S MISSION STATEMENT, WHICH EMPHASIZES THE PRIMARY IMPORTANCE OF TEACHING AND LEARNING.

The General Assembly of North Carolina enacts:

Section 1. G.S. 116-1 reads as rewritten:

"§ 116-1. Purpose.

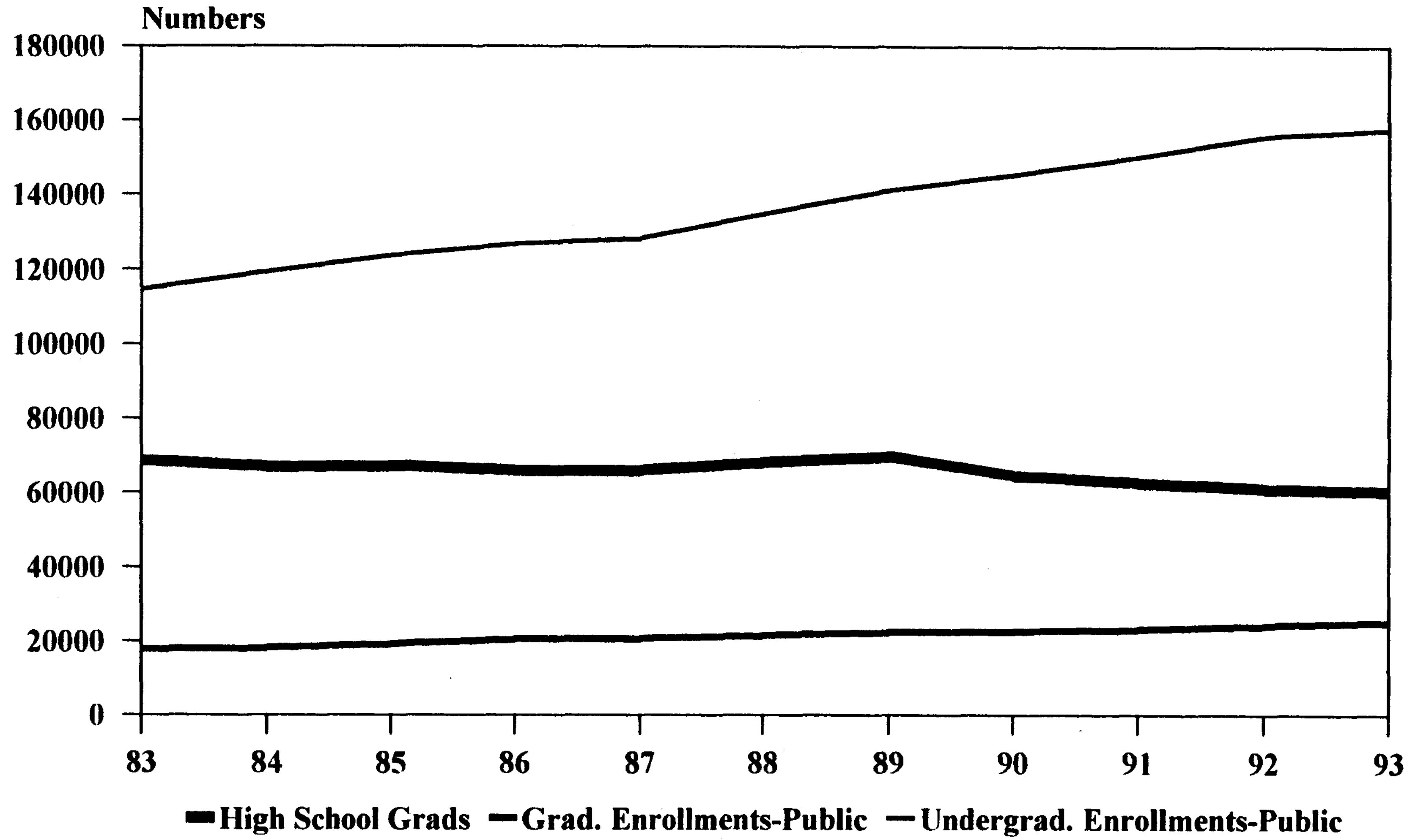
(a) In order to foster the development of a well-planned and coordinated system of higher education, to improve the quality of education, to extend its benefits and to encourage an economical use of the State's resources, the University of North Carolina is hereby redefined in accordance with the provisions of this Article.

(b) The University of North Carolina is a public, multi-campus university dedicated to the service of North Carolina and its people. It encompasses the 16 diverse constituent institutions and other educational, research, and public service organizations. Each shares in the overall mission of the University. That mission is to discover, create, transmit, and apply knowledge to address the needs of individuals and society. This mission is accomplished through instruction, which communicates the knowledge and values and imparts the skills necessary for individuals to lead responsible, productive, and personally satisfying lives; through research, scholarship, and creative activities, which advance knowledge and enhance the educational process; and through public service, which contributes to the solution of societal problems and enriches the quality of life in the State. In the fulfillment of this mission, the University shall seek an efficient use of available resources to ensure the highest quality in its service to the citizens of the State.

Teaching and learning constitute the primary service that the University renders to society. Teaching, or instruction, is the primary responsibility of each of the constituent institutions. The relative importance of research and public service, which enhance teaching and learning, varies among the constituent institutions, depending on their overall missions."

Sec. 2. This act is effective upon ratification.

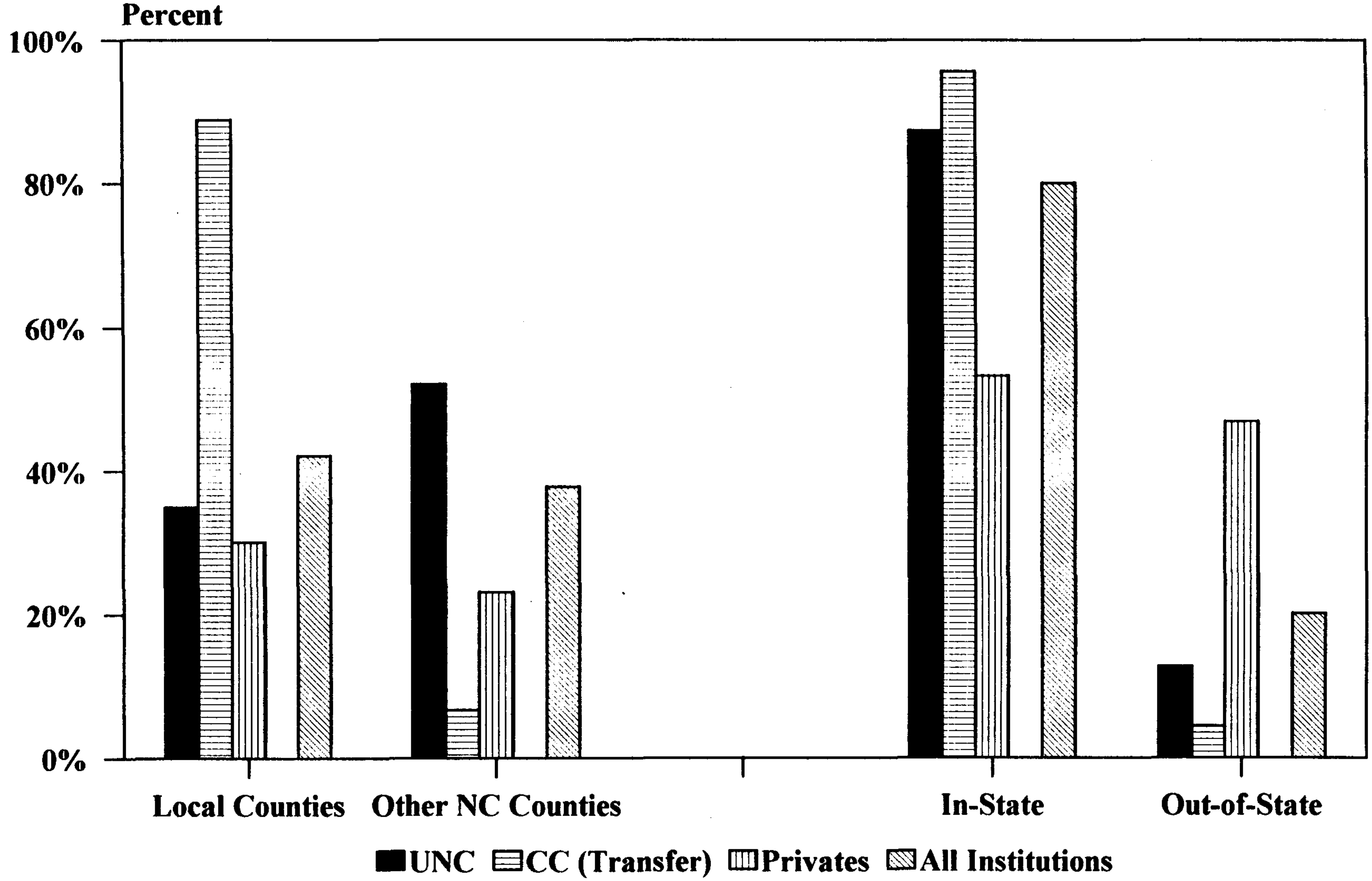
Enrollment Trends
Fall 1983 - Fall 1993



Note: Over this period, High School graduates decreased 10.1%, Undergraduate enrollments increased 37.3%, and graduate enrollments increased 44.7%.

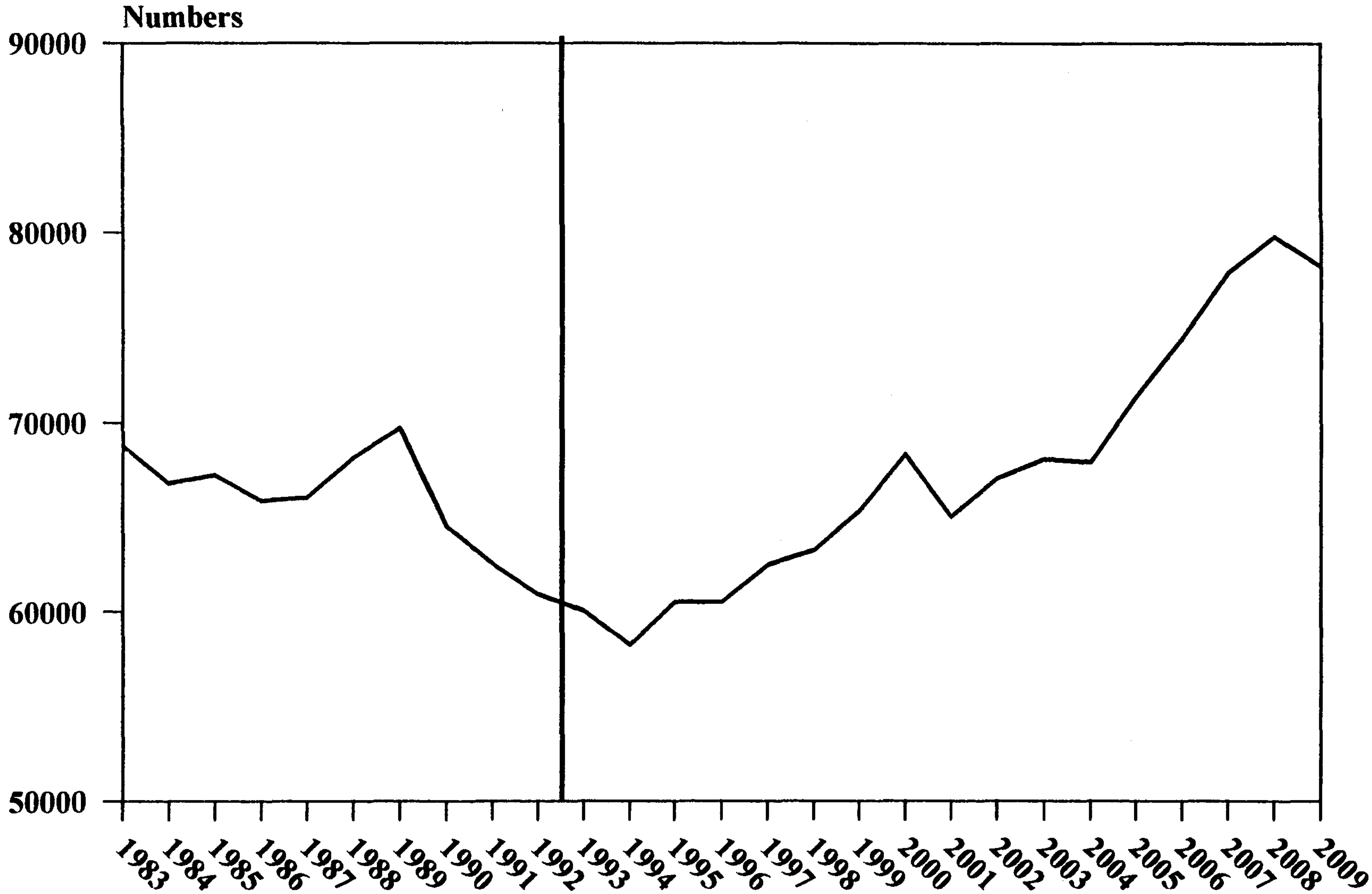
Sources: UNC, Statistical Abstract of Higher Education in NC 1993-94
WICHE
NCES, IPEDS, 1992

Geographic Origin of Undergraduates By Sector in Fall 1993



Source: UNC Planning Office

North Carolina Public High School Graduates



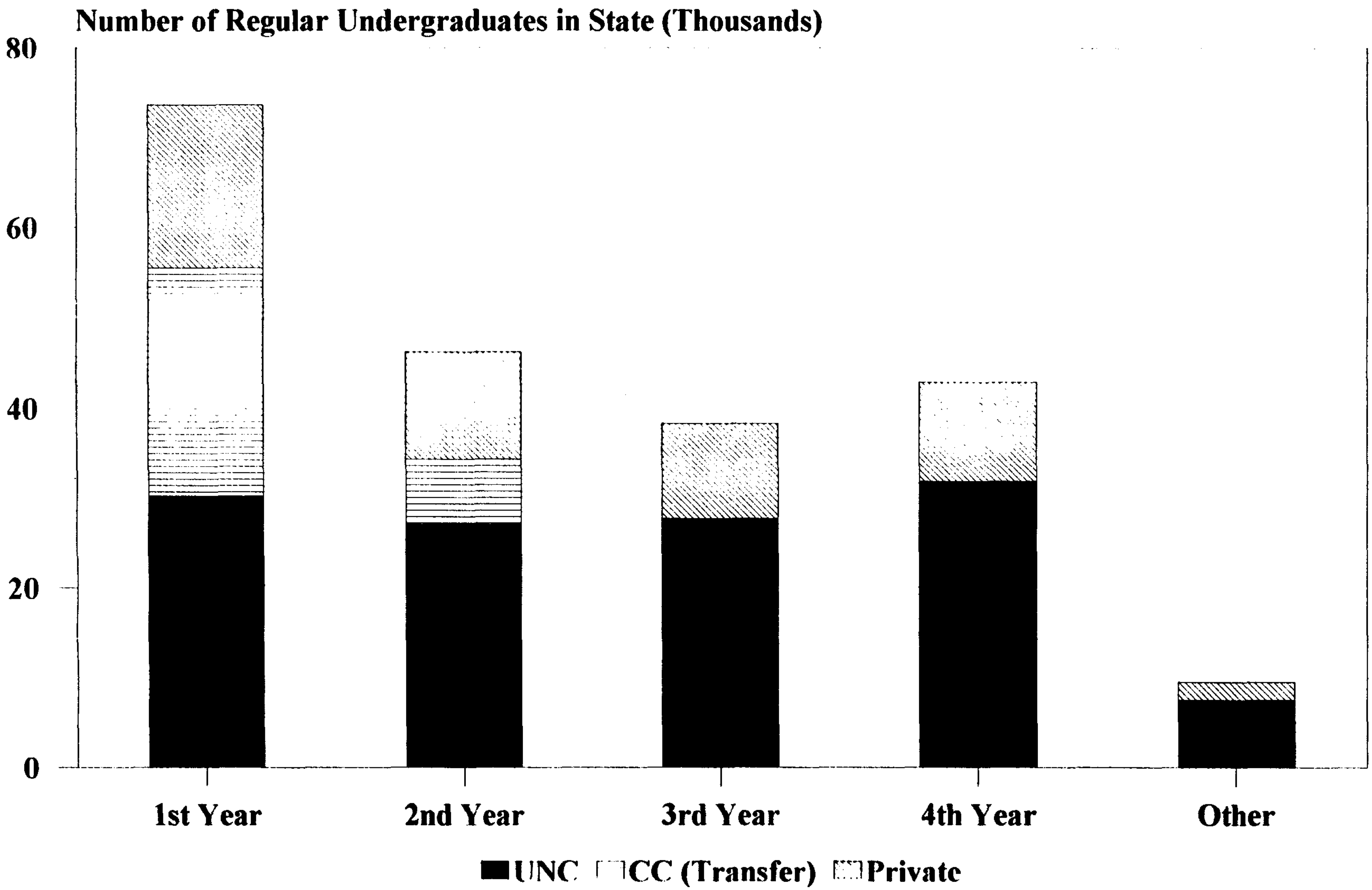
Note: Projected increase from 1994 to 2008 is 37%
Private High School Graduates Projected to be 2500-3000

Source: WICHE; High School Graduates: Projections by State, 1992-2009

-77-

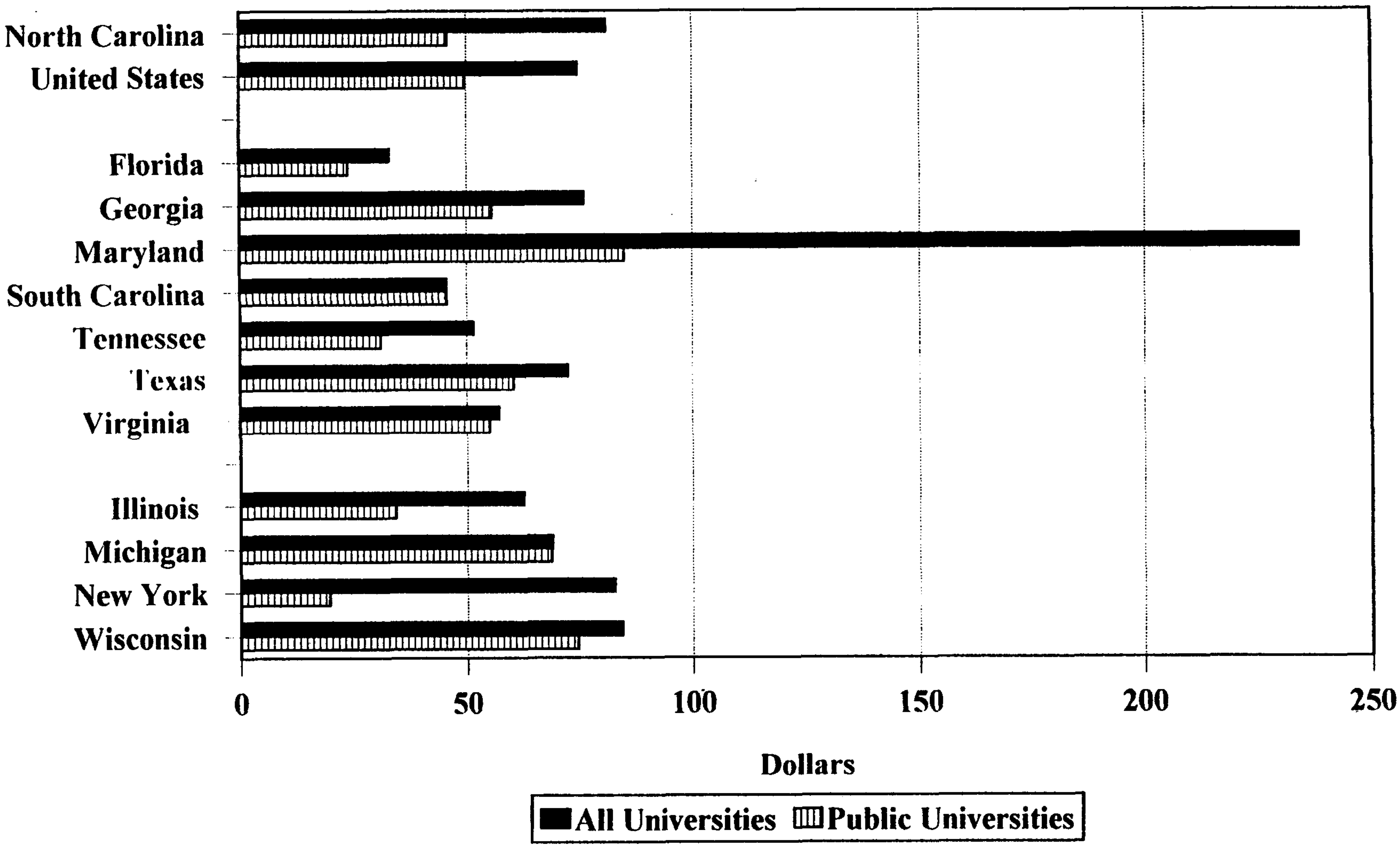
APPENDIX F

Distribution of All Undergraduates in North Carolina By Level and Sector in Fall 1993



Source: UNC Planning Office

RESEARCH EXPENDITURES PER CAPITA AT DOCTORATE-GRANTING INSTITUTIONS FY 1992



Sources: NSF, Science Resource Studies, 1992
U.S. Census Bureau, Estimates of State Population, 1992

APPENDIX H

Teaching Effectiveness, Not Publications, Should Be the Primary Criterion for Promotion of Faculty
(Percent Strongly Agreeing or Agreeing with Reservations)

	1969	1975	1984	1989
Research	59%	48%	34%	27%
Doctorate-granting	72%	65%	53%	48%
Comprehensive	86%	84%	72%	75%
Liberal Arts	92%	91%	83%	82%
Two-year	96%	96%	88%	95%
ALL RESPONDENTS	77%	75%	65%	69%

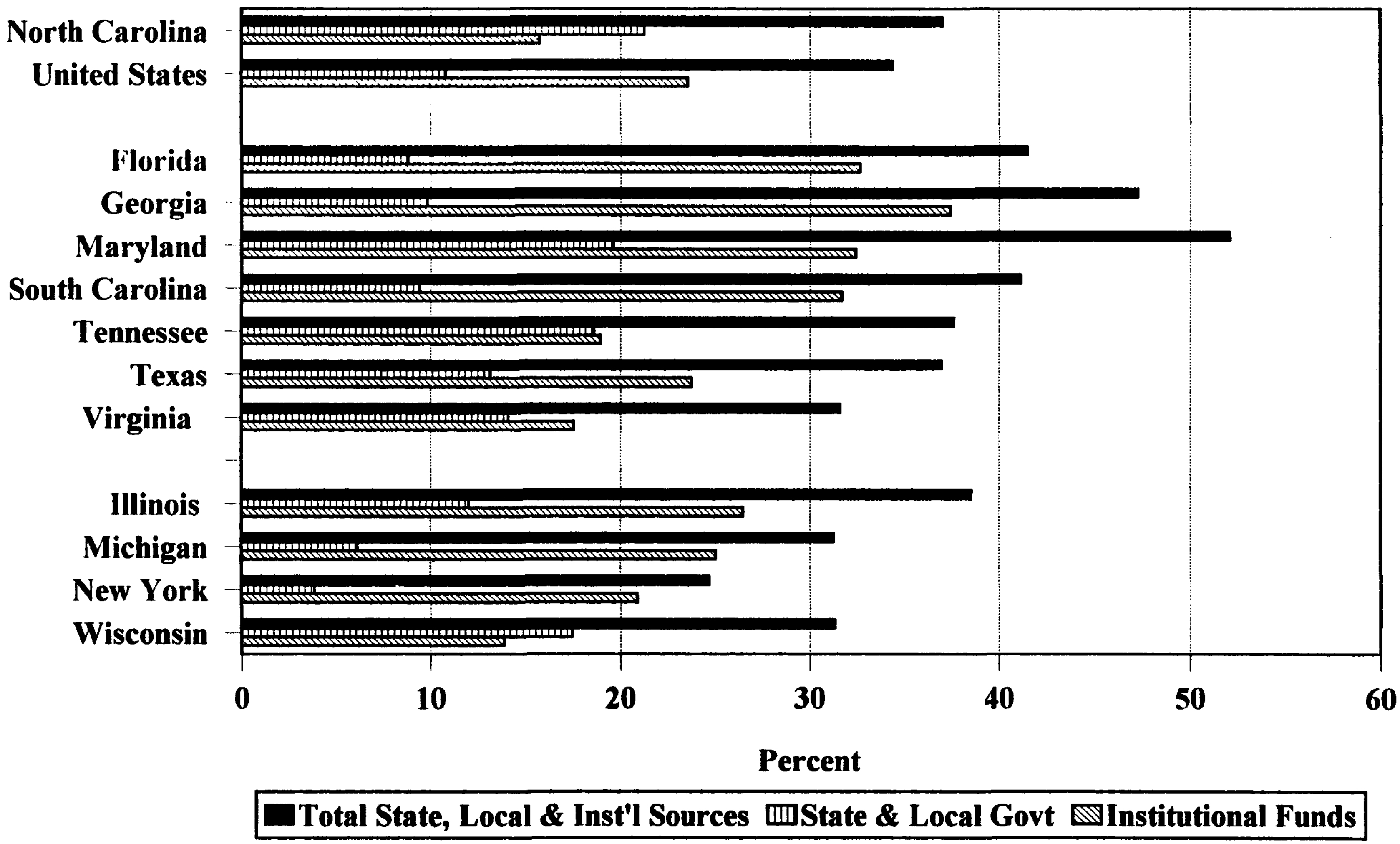
Source: Data supplied by the Carnegie Foundation for the Advancement of Teaching

It Is Difficult for a Person to Receive Tenure If He/She Does Not Publish
(Percent Strongly Agreeing or Agreeing With Reservations)

	1969	1975	1984	1989
Research	74%	86%	92%	94%
Doctorate-granting	55%	67%	85%	88%
Comprehensive	19%	33%	54%	65%
Liberal Arts	18%	22%	35%	39%
Two-year	6%	9%	8%	7%
ALL RESPONDENTS	41%	46%	55%	59%

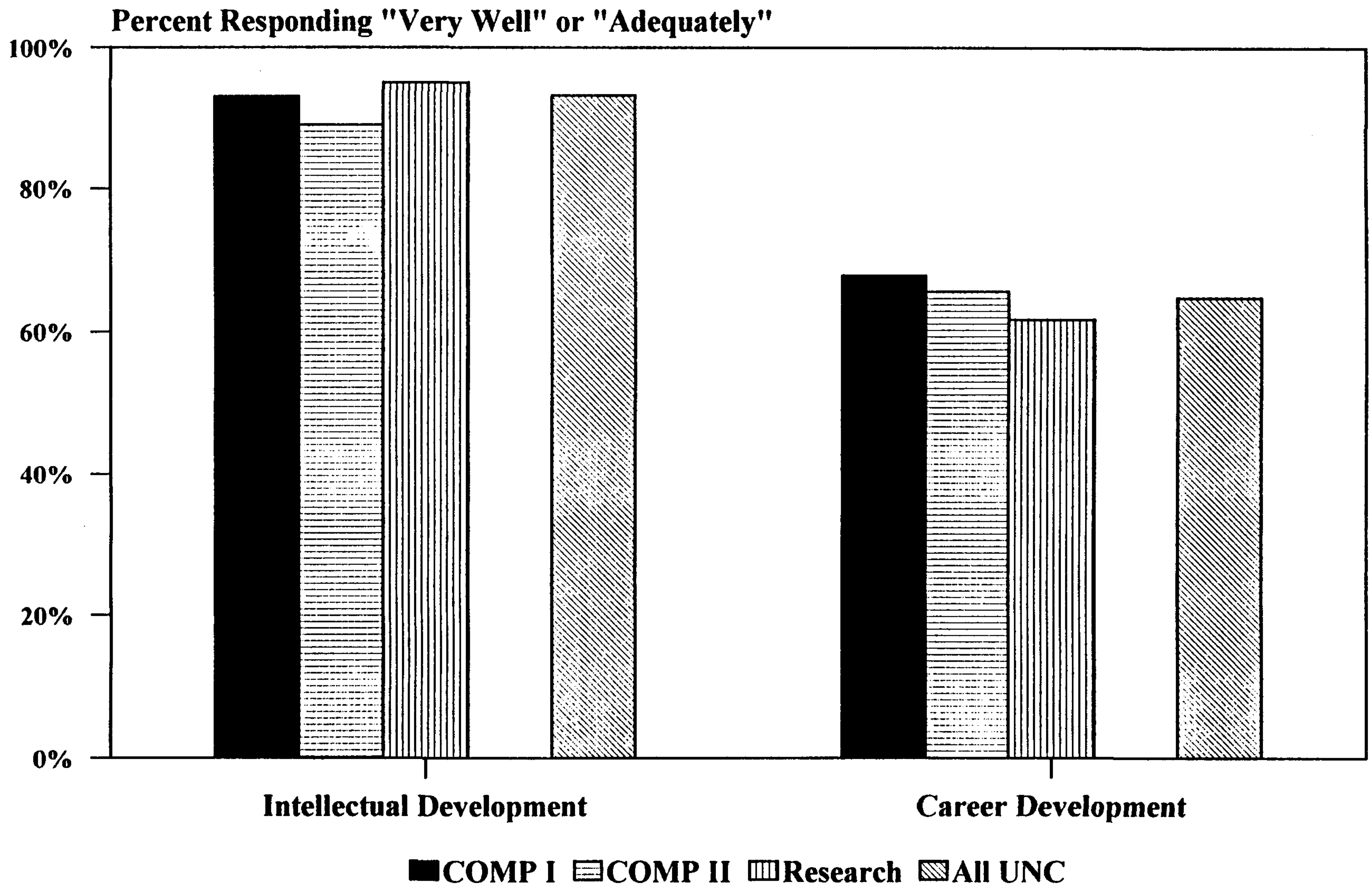
Source: Data supplied by the Carnegie Foundation for the Advancement of Teaching

SHARES OF PUBLIC UNIVERSITY RESEARCH FUNDING RECEIVED FROM STATE AND INSTITUTIONAL SOURCES FY 1992



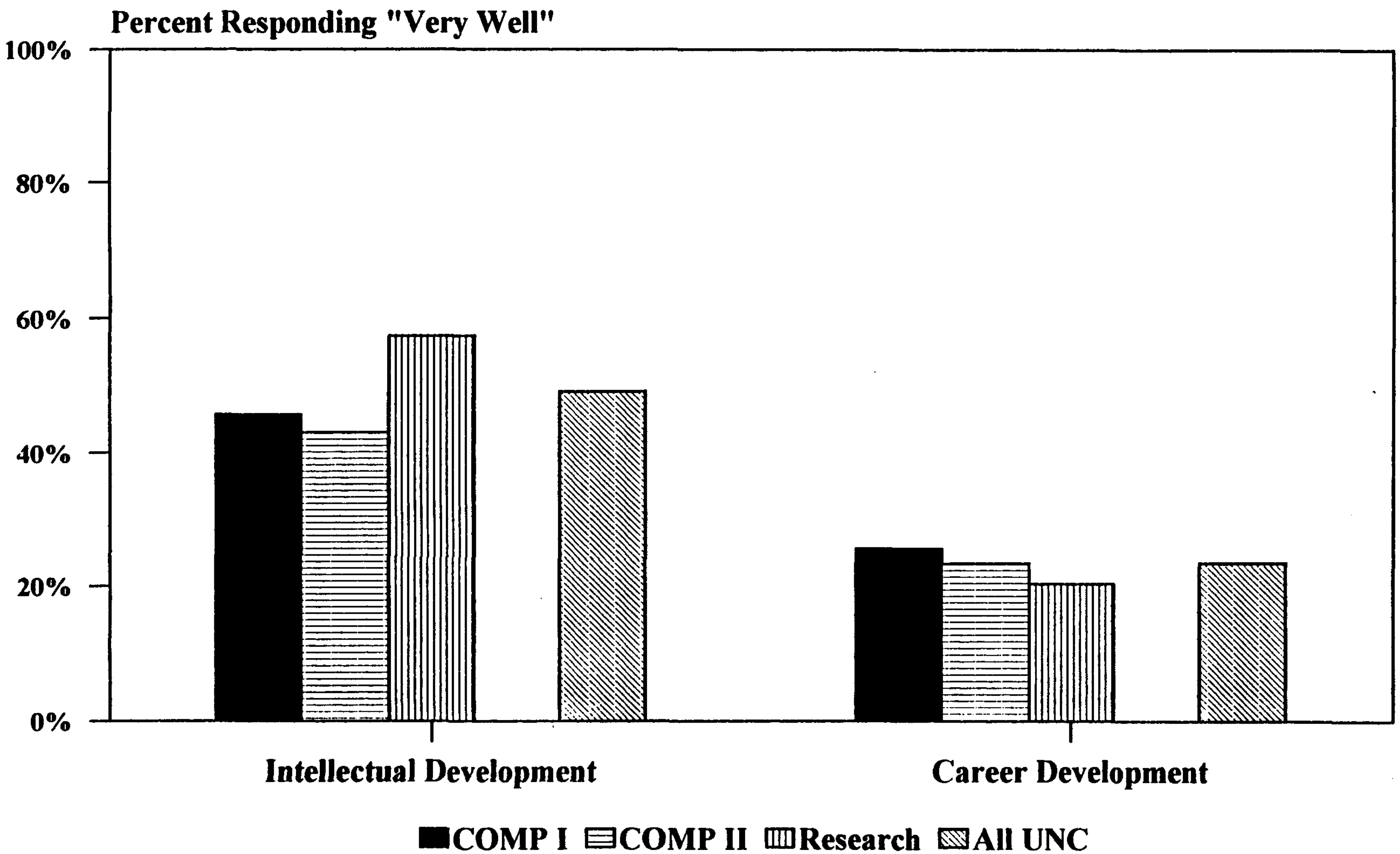
Sources: NSF, Science Resource Studies, 1992
U.S. Census Bureau, Estimates of State Population, 1992

1992 Graduate Perceptions of Whether Overall Needs Were Met



Source: UNC Planning Office

1992 Graduate Perceptions of Whether Overall Needs Were Met

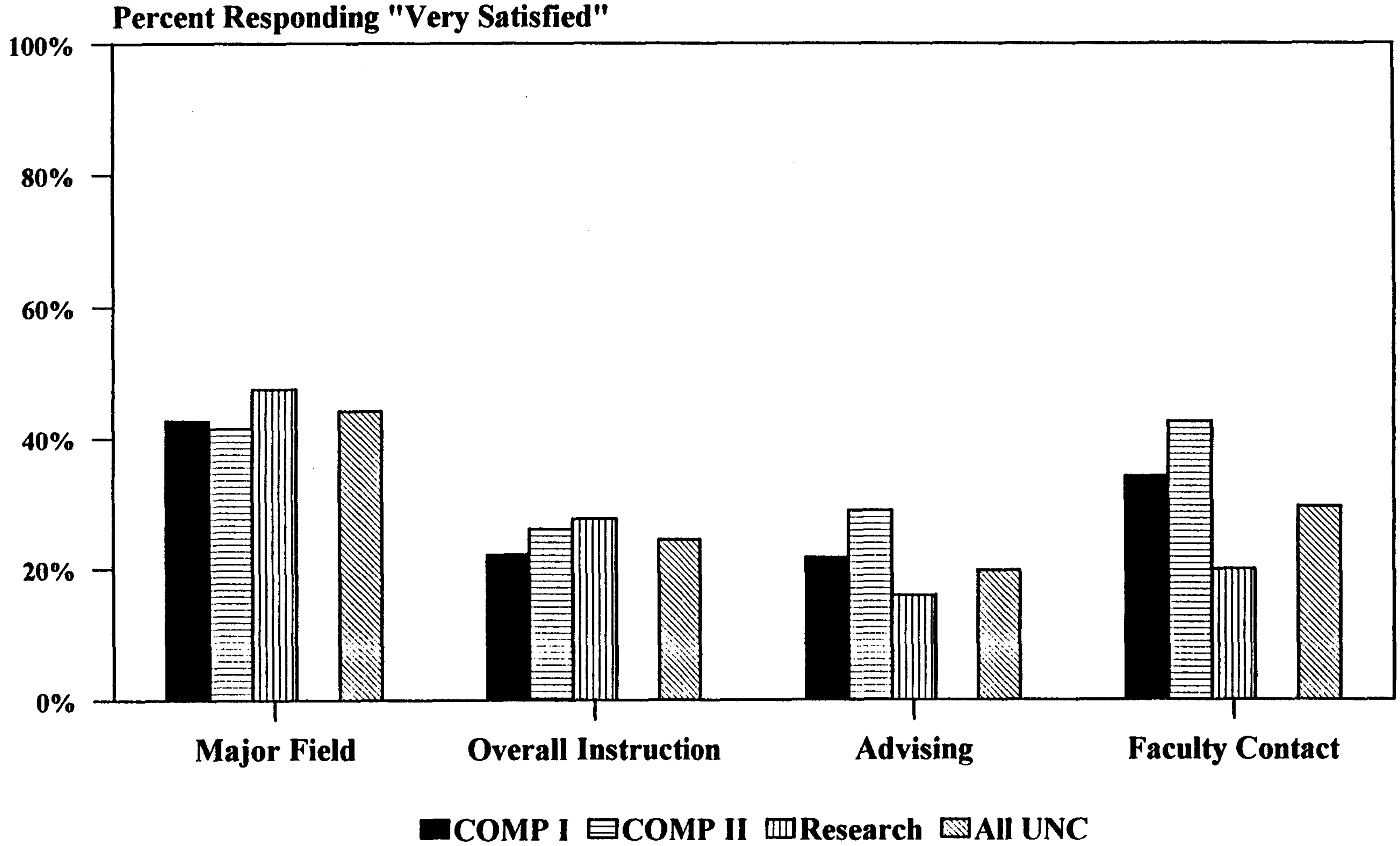


Source: UNC Planning Office

-82-

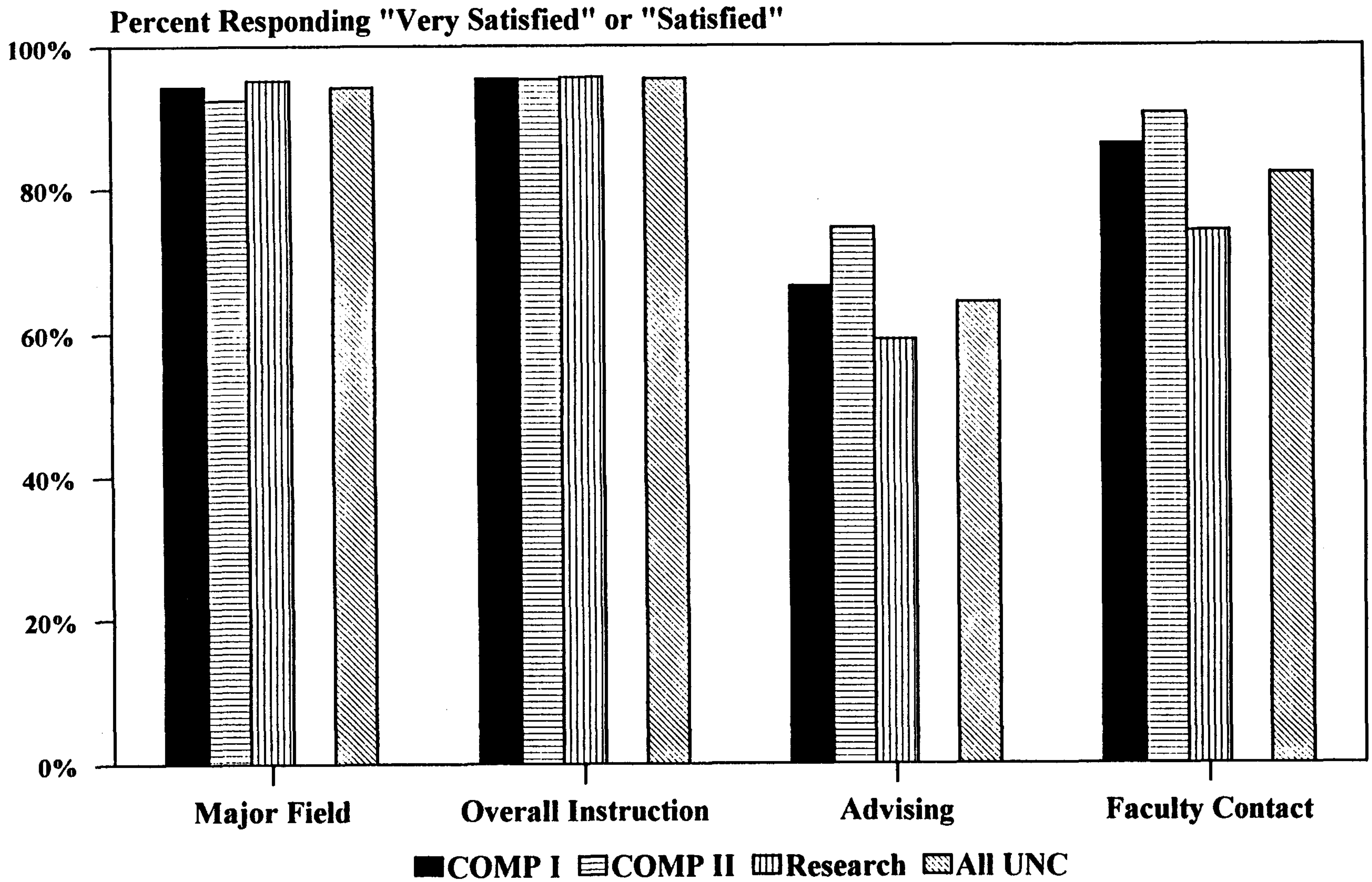
APPENDIX K

1992 Graduate Perceptions of Quality of Various Institutional Attributes



Source: UNC Planning Office

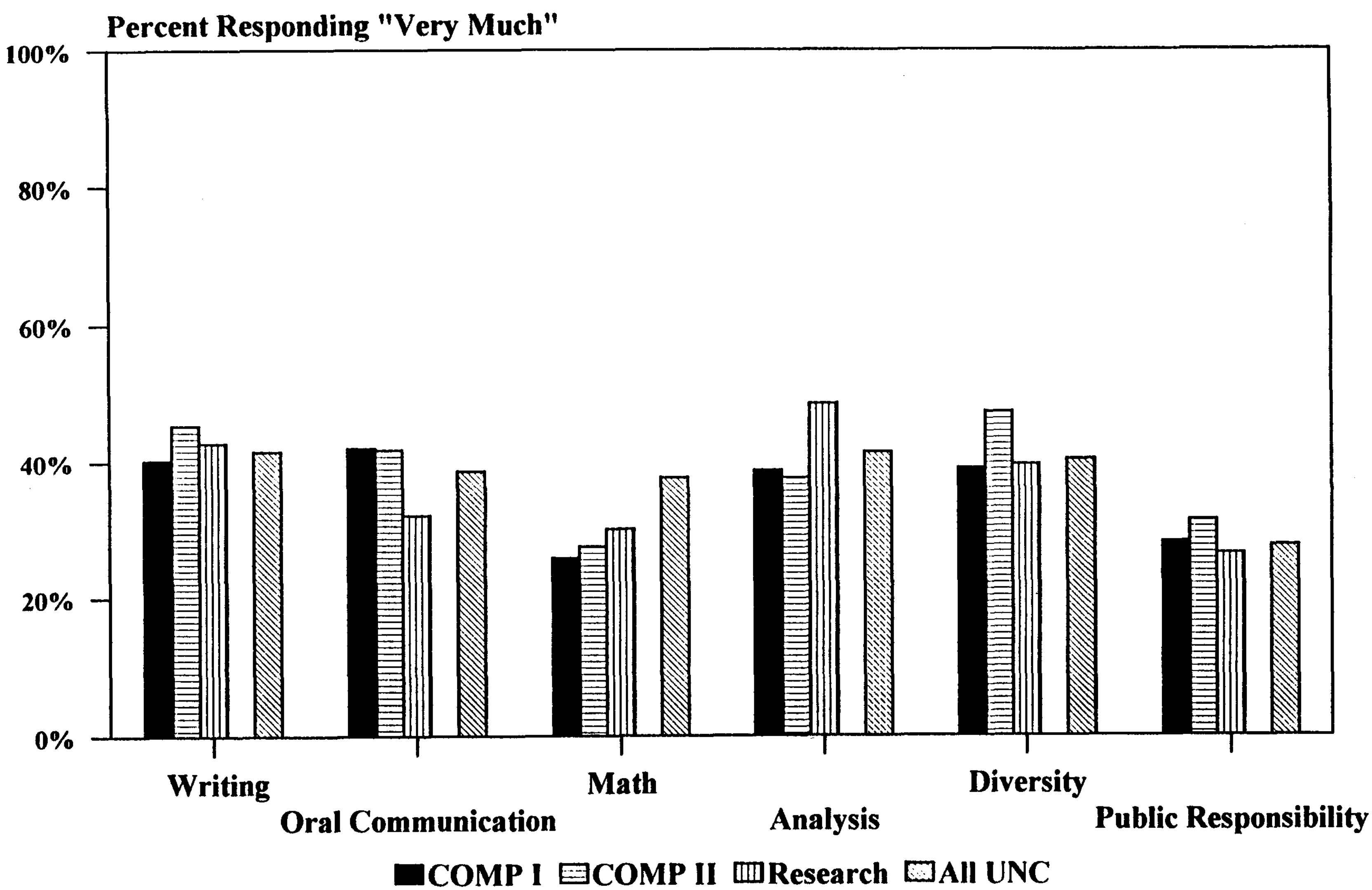
1992 Graduate Perceptions of Quality of Various Institutional Attributes



Source: UNC Planning Office

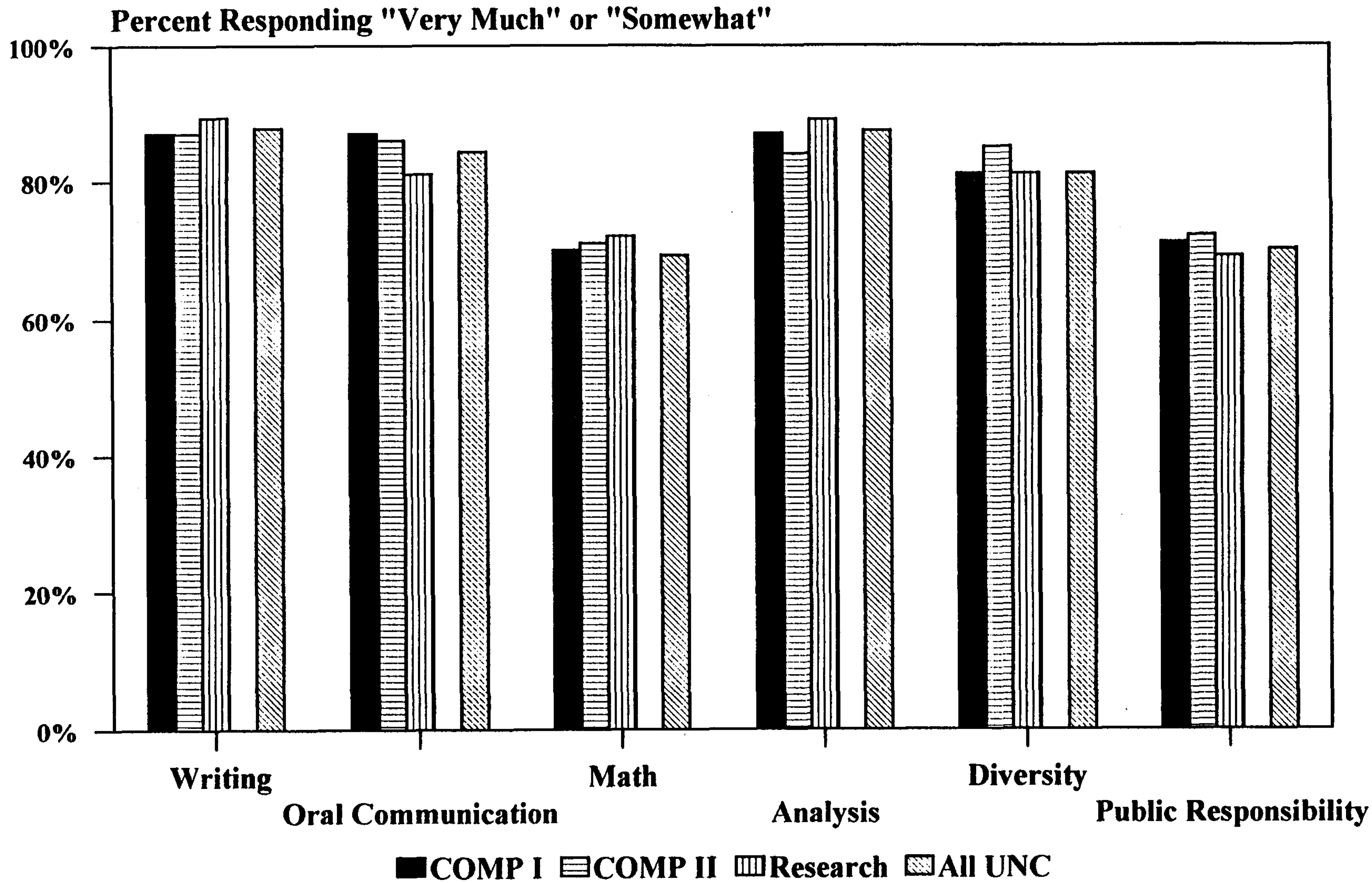
APPENDIX M

1992 Graduate Perceptions of Outcomes After One Year



Source: UNC Planning Office

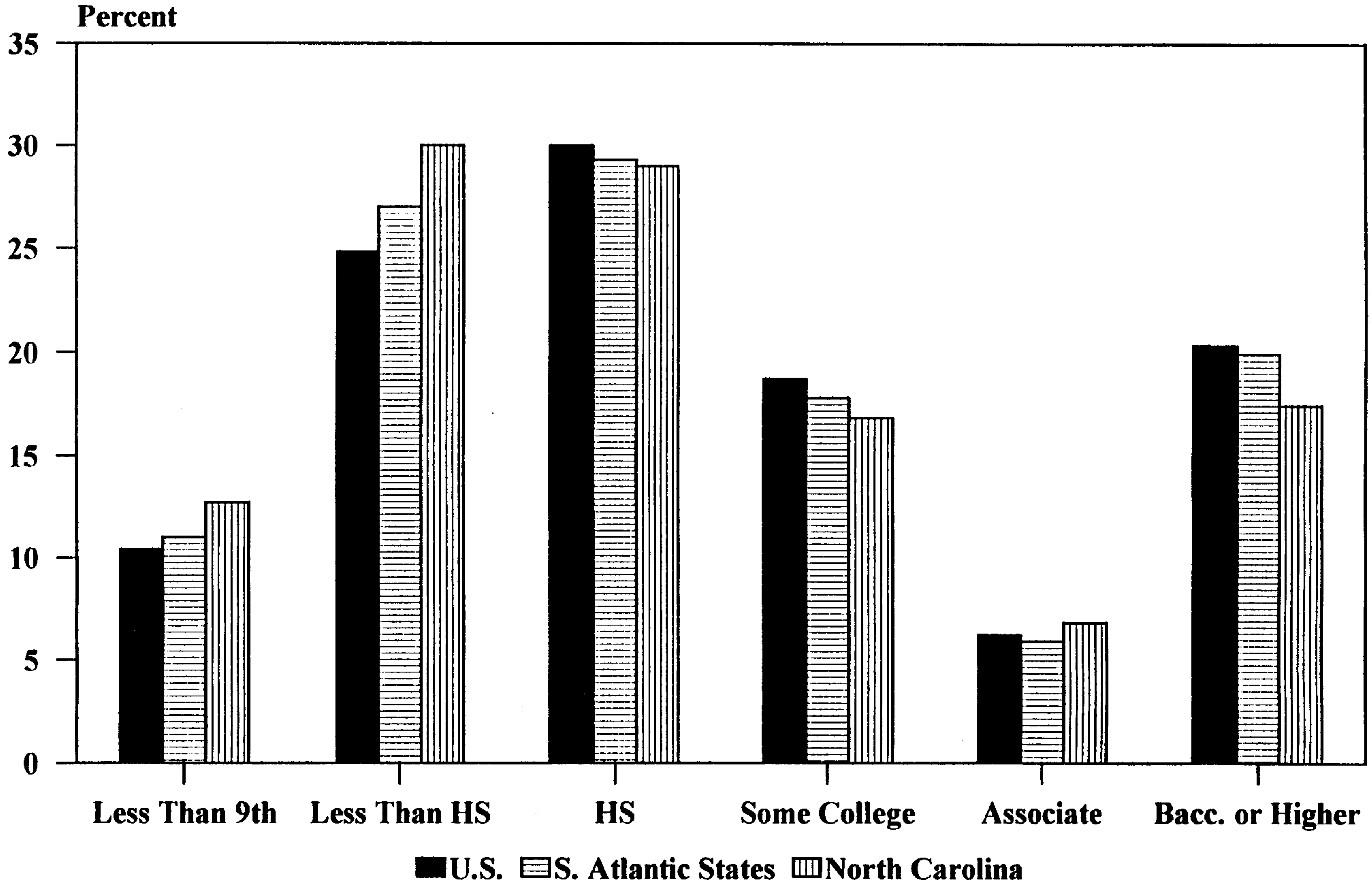
1992 Graduate Perceptions of Outcomes After One Year



Source: UNC Planning Office

APPENDIX O

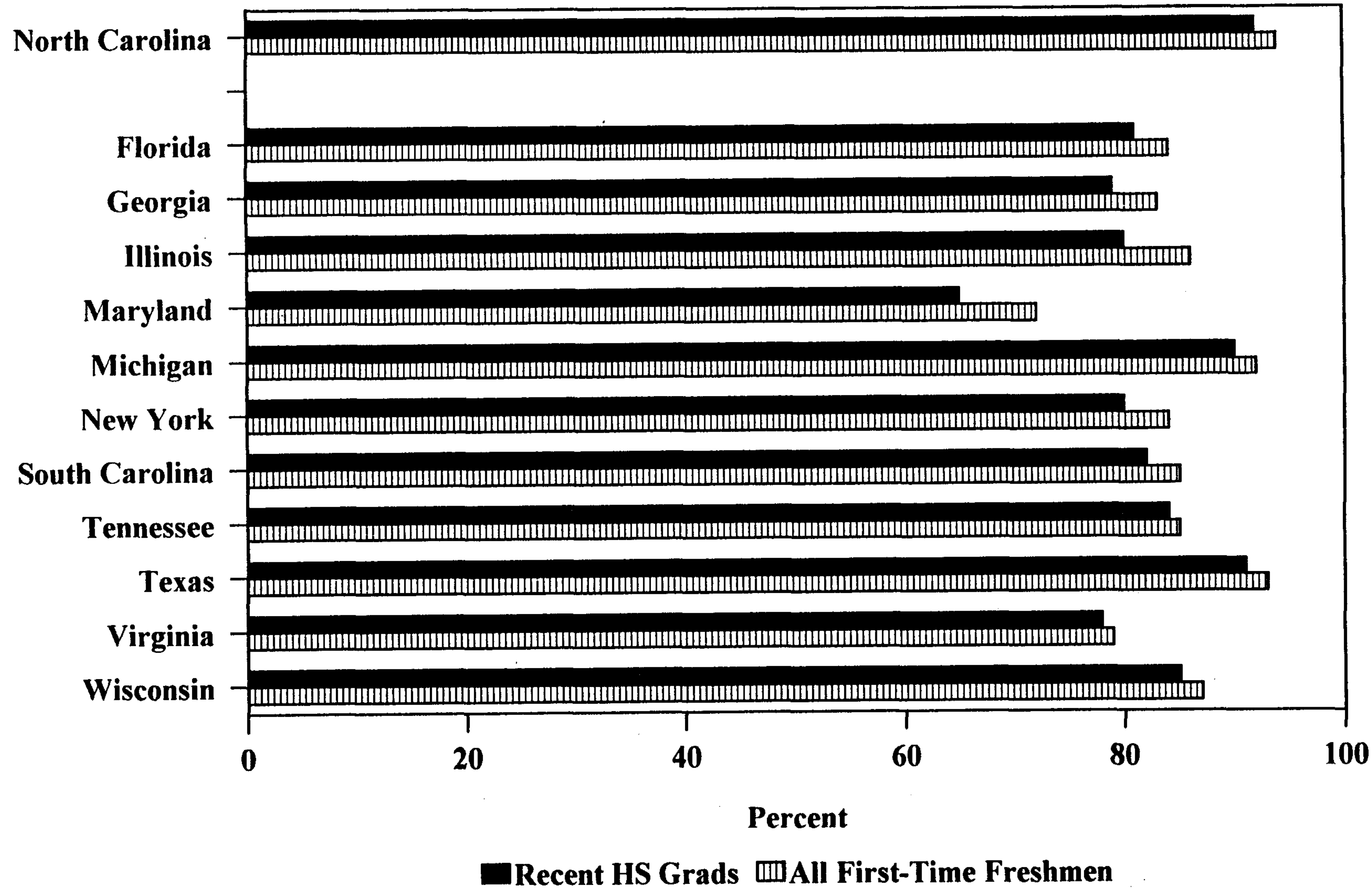
Educational Attainment of the Adult Population, 1990



Note: South Atlantic States are DE, MD, DC, VA, WV, NC, SC, GA, FL.

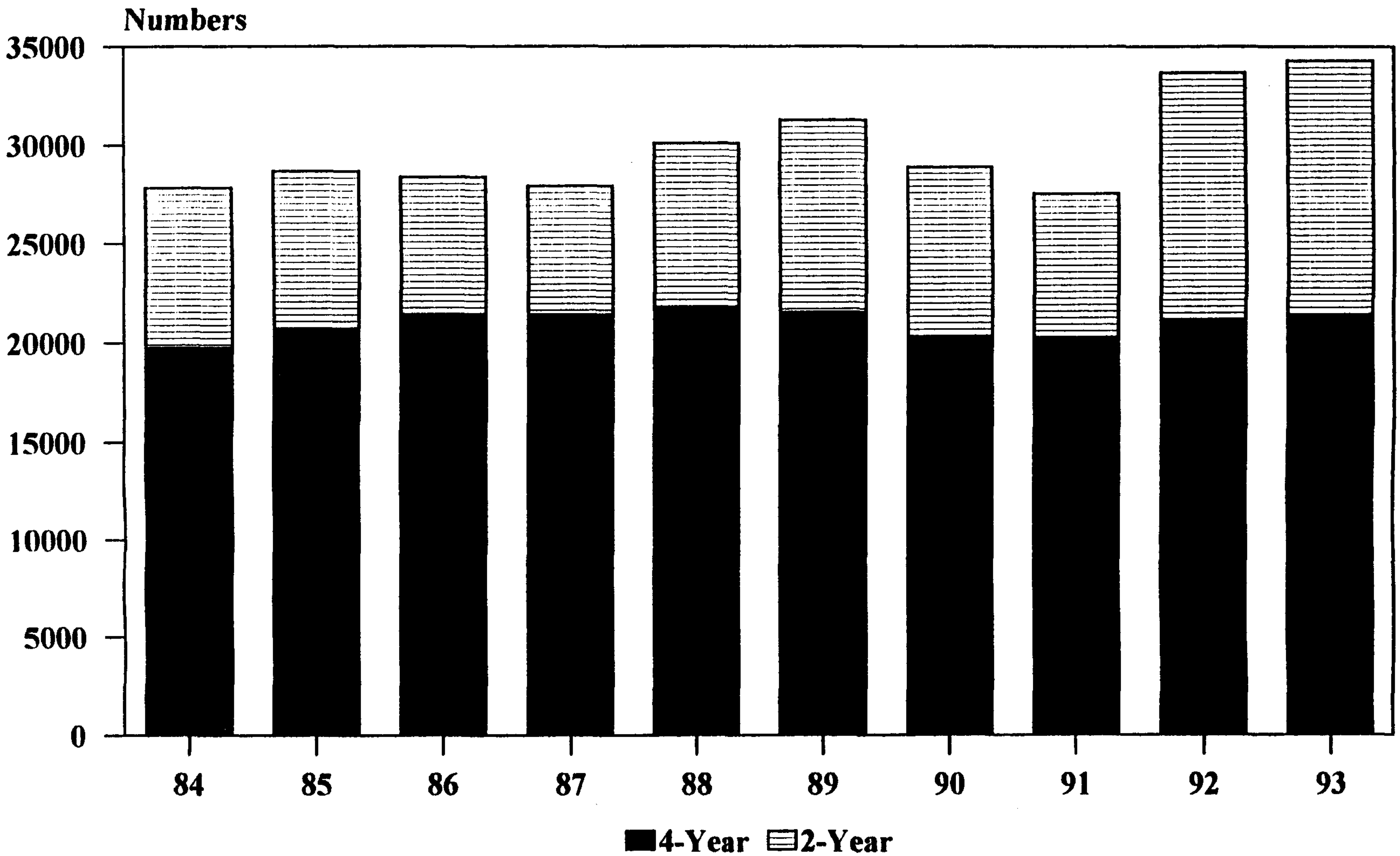
Source: U.S. Census, 1990

Proportion of First-Time Students Enrolled In-State



Sources: NCES, IPEDS, 1992
WICHE

First-Time Freshmen Enrollments in Public Institutions*

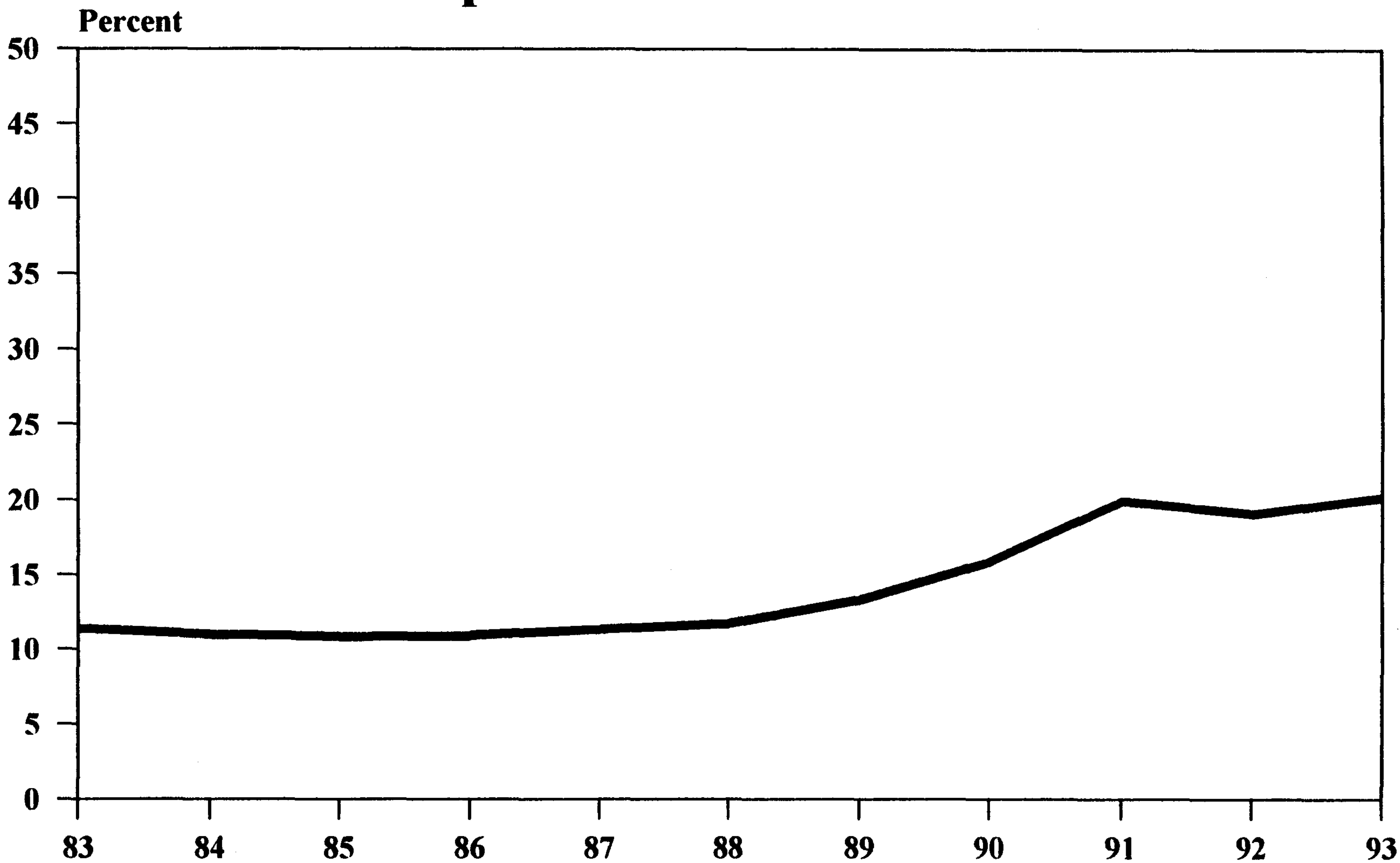


*CC enrollments include only college transfers

Note: 4-year increased 7.9% and 2-year 60.3%

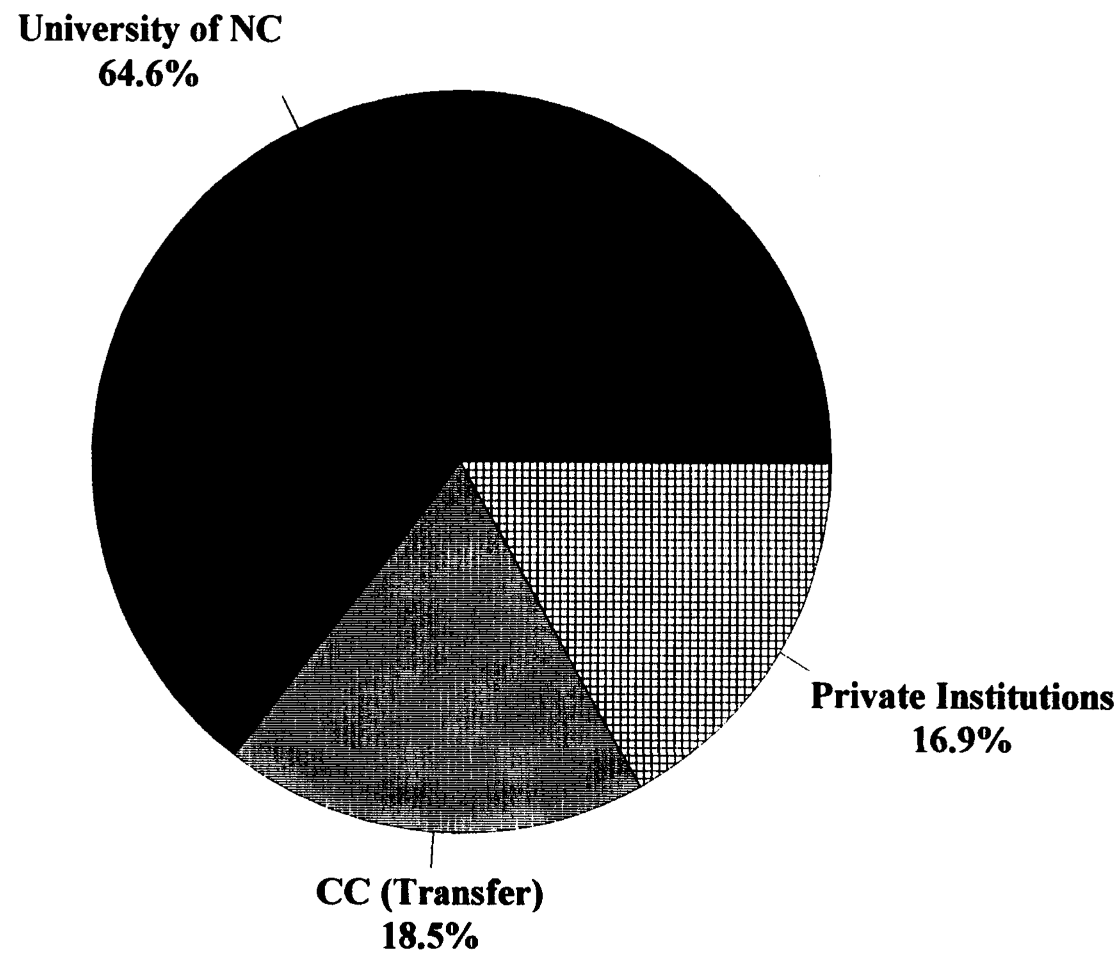
Source: UNC Statistical Abstract of Higher Education in NC, 1993-94

Community College Transfers to UNC as a Proportion of First-Time Freshmen



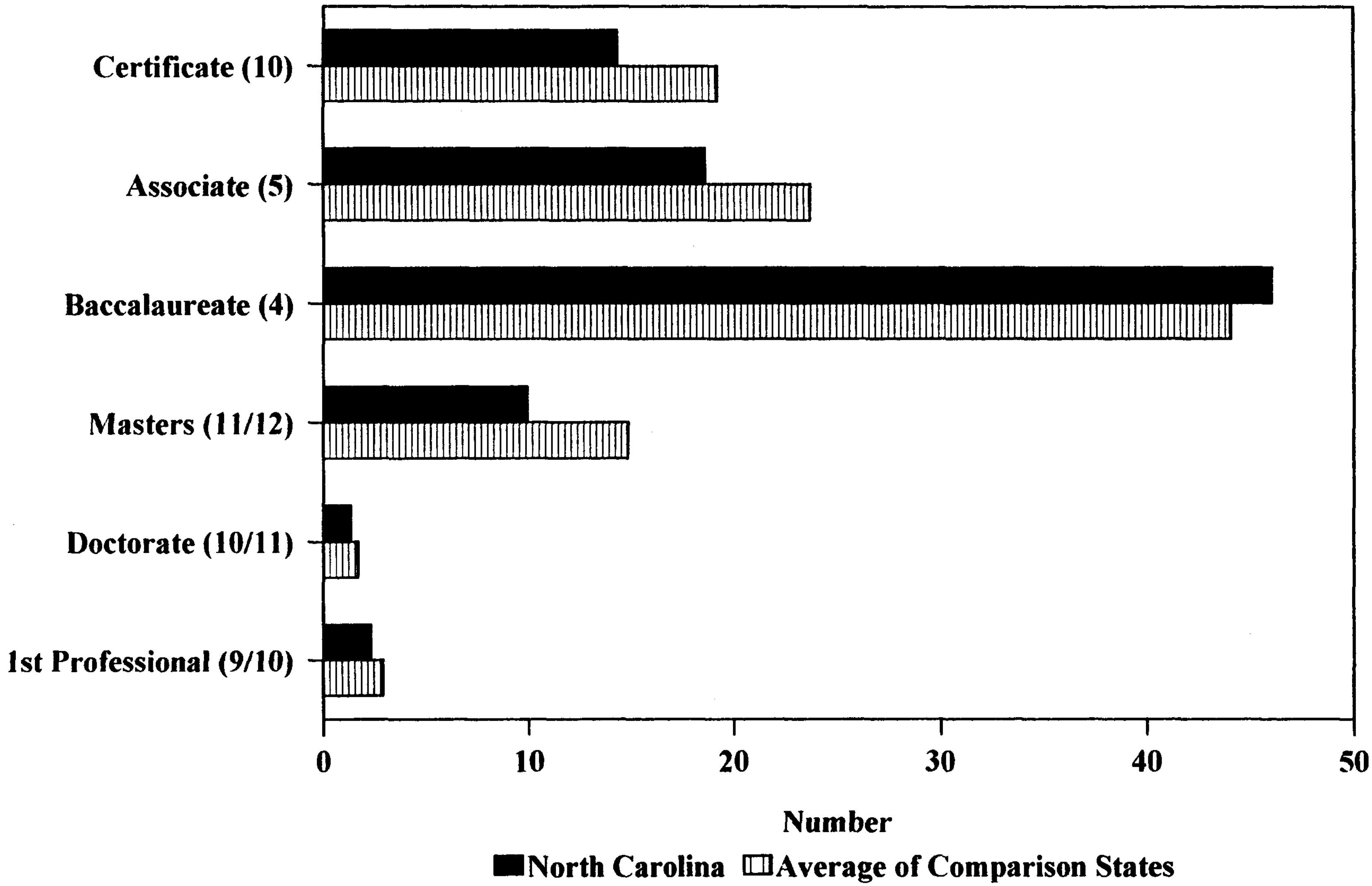
Source: UNC Statistical Abstract of Higher Education in NC, 1993-94

Distribution of North Carolina Resident Regular Undergraduates in Fall 1993



Source: UNC Planning Office

Degrees Granted per 100 High School Graduates

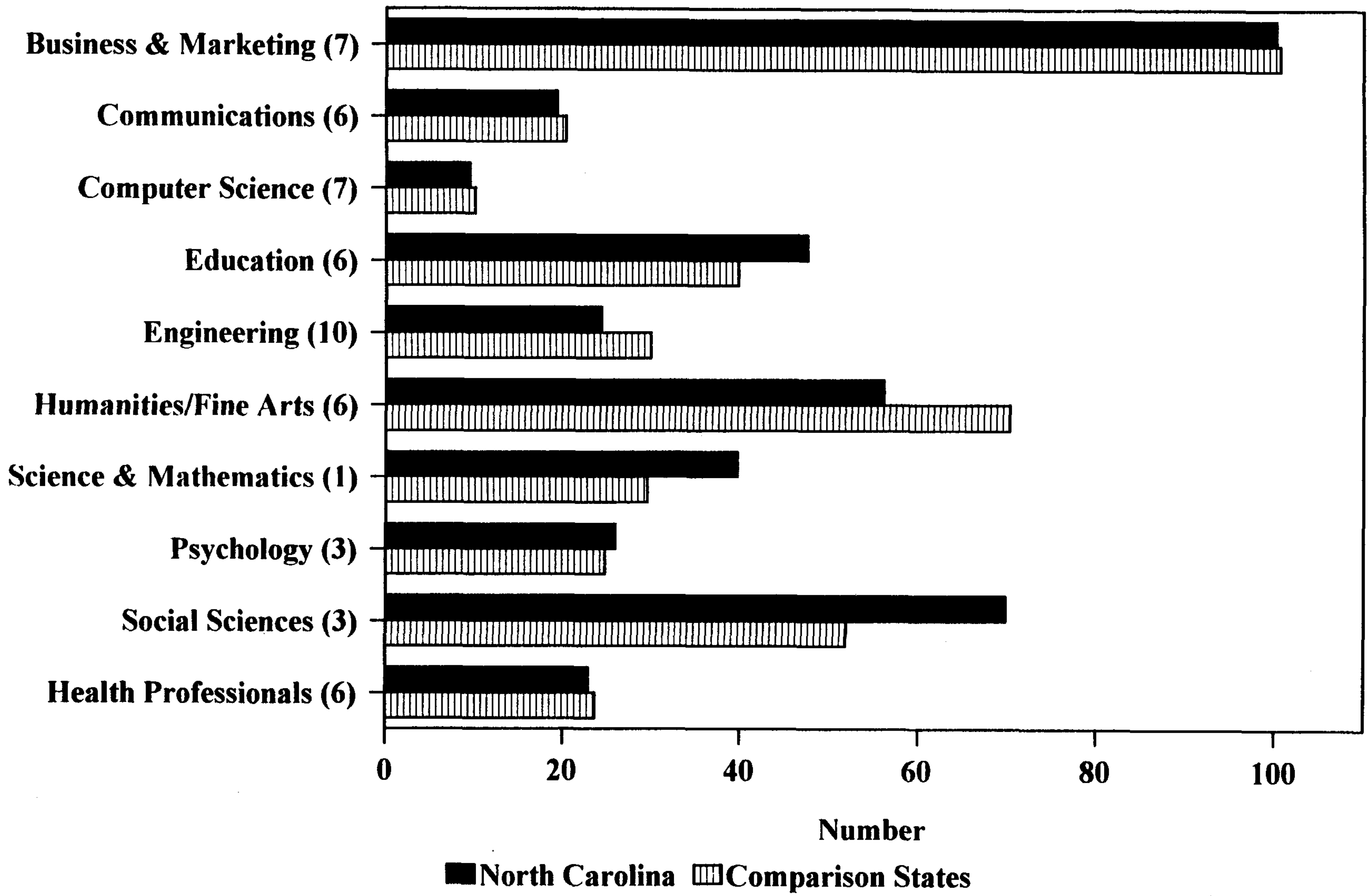


Note: Numbers in ( ) indicate NC Rank of 12

Source: NCES, IPEDS, 1992
WICHE; High School Graduates: Projections by State, 1992-2009

APPENDIX U

Baccalaureate Degrees Awarded Per 1000 High School Graduates
Selected Fields (All Institutions)



Notes: Comparison States are FL, GA, IL, MD, MI, NY, SC, TN, TX, VA, WI.
Numbers in parentheses indicate NC rankings (of 12 states).

Sources: NCES, IPEDS, 1992, WICHE (1990 Data)

APPENDIX W

BACKGROUND PAPER ON STATE ACTION TO IMPROVE UNDERGRADUATE EDUCATION

Prepared for the Study Commission on the Status of Education at the University of North Carolina

National Center for Higher Education Management Systems (NCHEMS)

The purpose of this background paper is to provide the Study Commission with a brief overview of objectives and policies related to improvements in the quality of undergraduate education. The paper is consequently divided into two sections. The first section describes the objective of "high quality" in undergraduate study from two points of view. One perspective covers the **outcomes** expected of undergraduate education by those who pay for it and those who employ its "products." The discussion here is informed by the results of eighteen focus groups composed of policy and corporate leaders held last summer under the auspices of the Education Commission of the States (ECS). Another perspective on undergraduate quality is provided by twelve characteristics of **"good practice"** in delivering undergraduate education identified through a review of the research on collegiate learning. The evidence is strong that if such good practices are engaged in systematically by colleges and universities, outcomes for undergraduate students will improve.

The paper's second section briefly reviews the policy options available to state governments to induce institutions to teach toward such outcomes and to engage in such practices. These options are presented under two main headings--fiscal policies and accountability/reporting policies.

I. Policy Aims

Policies directed toward the improvement of undergraduate educational quality must be concerned about both outcomes and processes. First, the state's colleges and universities must be clear about the particular common ends that undergraduate education is intended to produce. Second, a great deal is already known about the conditions that affect production of these desired outcomes. A second objective of policy, therefore, should be to provide mechanisms to ensure that these conditions in fact are present in all institutions.

A. Valued Outcomes of Undergraduate Study

To determine the types of undergraduate outcomes most valued by members of society with a strong stake in higher education, the Education Commission of the States (ECS) recently conducted a series of focus groups involving policy and corporate leaders from around the country. All were centered on a single guiding question: "what constitutes quality in undergraduate study?" Among the range of desirable outcomes consistently noted by participants as hallmarks of "quality" in these conversations were the following:

1. **higher-order applied problem-solving abilities.** Though superficially resembling the kinds of skills labelled "critical thinking" inside academic circles, the particular abilities noted here were far more practical. It was not enough that students simply **possess** analytical skills; they should equally be able to **use** these skills effectively in complex, real-world settings. Especially valued by participants were applications of such skills in novel and creative ways--ways they believed were not typically captured by instruction organized exclusively in terms of the traditional academic disciplines. Noted instead were qualities like the ability to "think on one's feet" or to function as a "reflective practitioner"--not just "solving problems," but "being able to find the right problems to solve.." Significantly, participants from the corporate community did **not** emphasize technical skills provided that these more basic problem-solving abilities were present.

2. **an "enthusiasm" for learning on a continuous basis.** This attribute resembles more traditional notions of "lifelong learning" expressed by academics, but again with a strong admixture of actual practice. Especially emphasized by all participants were the skills and inclination to cope with changing circumstances--both on the job and in one's own life as a citizen. Equally stressed were the abilities to access new information and to learn how to do new things.

3. **a range of interpersonal skills including communication and an inclination toward collaborative work.** On the part of business leaders, rating such attributes as important reflects perceptions about the changing nature of work. On the one hand, this puts a premium on oral communications skills-- needed both to allow increasingly collegial work-teams to function effectively and to allow communication with non-specialists. On the other hand, it demands additional social skills of listening and mutual assistance required to make teamwork effective.

4. **a strong sense of responsibility for action--both personal and as a member of a community.** For policymakers and business leaders alike, this widely expressed theme involved two related components. The first encompasses a sense of responsibility for one's own actions, especially as these may affect other people. Another refers to the individual's behavior as a member of a community. For business leaders, this often included such attributes as "organizational loyalty". For both policymakers and corporate representatives it also prominently included participation in public service activities, voluntary work in one's community, and informed citizenship.

5. **the ability to bridge cultural and linguistic barriers.** Again, this theme has much on the surface in common with current intellectual values of "multi- culturalism" and "global awareness." Both educational and policy leaders, for instance, could agree broadly that an important outcome of college should be "transcendence of one's own parochial world-view." Equally at the core of this attribute is an awareness of and respect for ethnic and national differences. Additionally mentioned by both parties were foreign or second language skills required for intercultural communication.

6. **a well-developed sense of "professionalism."** In assigning importance to this theme, policy and business participants differed decisively from educational leaders--though some of the attributes mentioned do resemble occasional "character-related" outcomes mentioned as part of traditional liberal education. Included here were such characteristics as self-discipline (especially when applied to a particular task, as in "work-ethic" or "disciplined goal achievement") and the ability to "understand and work through a structure to get things done" as a member of an organization.

This list of outcomes constitutes an excellent template in terms of which to begin discussions of collegiate attainment on a statewide basis.

B. Characteristics of Good Practice in Undergraduate Education

Considerable research on the characteristics of good practice in undergraduate education has also resulted in a relatively short list of factors that are likely to provide students with superior learning experiences. Twelve of these factors are identified and described in summary fashion below.

1. **High Expectations**. Students learn more effectively when expectations for learning are placed at high but attainable levels, and when these expectations are clearly communicated from the outset. When students are expected to take risks and to perform at high levels, they make greater efforts to succeed. Absent this kind of encouragement, they will tend to choose "safe" learning alternatives that allow little room for developing their full potentials. In contrast to more conventional notions of "academic rigor," moreover, students should not be simply left on their own to reach set standards; instead, both the institution and its faculty must make active efforts to help them succeed.

2. **Coherence in Learning**. Students also succeed best in developing valued higher-order skills when such skills are reinforced throughout their educational program. This means at a minimum that students should be presented with a set of learning experiences that consists of more than merely a required number of courses or credit hours. Instead, the curriculum should be structured in a manner that

sequences individual courses to reinforce intended outcomes and that consciously direct instruction toward collective ends.

3. **Synthesizing Experiences**. Students also learn best when they are required to integrate knowledge and skills learned in different places in the context of a single problem or setting. Typically in baccalaureate curricula, this involves a senior seminar, project, external examiner, or thesis that requires a synthesis of knowledge and an active demonstration of independent inquiry or application. But such experiences can appropriately occur at multiple points in a student's career and should not be confined to upper division or baccalaureate programs.

4. **Integrating Education and Experience**. Classroom experiences are both augmented and reinforced by multiple opportunities to apply what is learned. In professional curricula such opportunities abound in such mechanisms as formal practica, internships, or cooperative education arrangements, but they are generally lacking for undergraduate education as a whole.

5. **Active Learning**. At all levels, students learn best when they are given multiple opportunities to actively exercise and demonstrate skills. Rather than placing exclusive reliance on instructional settings that emphasize passive listening (for instance, lectures) in introductory courses, for example, this implies frequent discussion of presented class material, considerable written work, and the application of learned material to new settings or contexts. Rather than being based entirely on information recall, moreover, student assessments should require active demonstration of synthesis and application.

6. **Ongoing Practice of Learned Skills**. A common research finding in both K-12 and postsecondary study is that unpracticed skills will quickly atrophy. This is particularly the case with such core skills as computation and writing which, if not reinforced, will inevitably deteriorate without use. Good practice consistent with this principle requires multiple opportunities to meaningfully exercise such valued higher-order skills as communication (written and oral), critical thinking and problem-solving, or basic quantitative techniques. It also requires that students demonstrate such skills at appropriate levels as a condition for graduation.

7. **Assessment and Prompt Feedback**. Frequent feedback to students on their own performance is also a major contributor to learning. Typically in college classrooms, students receive little formal feedback on their work until well into the term. Consistency with this principle demands far greater attention to providing students with information about their own performance--both within courses and through advisement processes and integrative experiences that give them an opportunity to assess more broadly what they have learned. At the same time, early assessment at

the classroom level allows faculty to determine the many levels of student abilities and background that are often present, and can suggest some strategies for dealing with this diversity.

8. **Collaborative Learning**. Students learn better when they are engaged in a team effort rather than being entirely on their own. Working with others increases active involvement and provides multiple opportunities for feedback. At the same time, it actively reinforces communications and problem-solving skills. At least as important, it is the way the world outside the academy works--a world that students will shortly be expected to face. Research also suggests that collaboration is a useful model for faculty/student interaction; rather than being a "judge" of student performance, the best teachers act as "coaches"--working with students as joint participants in achieving a common goal.

9. **Considerable Time on Task**. Research also confirms that greater investments of time in learning yield greater payoffs in terms of what and how much is learned. How an institution defines its expectations of the ways students and instructors should use their time can thus powerfully influence the quality of learning that occurs. At the same time, visibly emphasizing time on task helps students to learn how to more effectively plan and manage their available time and how to better focus their energy.

10. **Respects Diverse Talents and Ways of Knowing**. Students come to college with vastly different backgrounds, levels of preparation, and funds of previous experience. At the same time, regardless of background, different students may learn effectively in quite different ways. Good practice demands carefully designing curricula and instructional efforts to meet this expected variety. Diversity, moreover, can itself be of instructional value. Not only should individual ways of knowing be respected and students allowed to capitalize on their strengths, but provide on the subject matter taught. Instructional approaches that actively tap prior student and faculty experiences and that highlight the differences in those experiences can thus be particularly effective.

11. **Frequent Student-Faculty Contact**. Considerable research suggests that frequency of academic, but out-of-class, contact between faculty and students is a strong determinant of both program completion and effective learning. Knowing a few faculty members well enhances students' intellectual commitment and encourages them to think about their own values and future plans. At the same time through such contact, students are able to see faculty less as "experts" than as role models for ongoing learning.

12. **Emphasis on the Early Years of Study**. Consensus is emerging that the first years of undergraduate study--particularly the freshman year--are critical to student success. Partly this is because the transition from high school to postsecondary study represents for most students a major discontinuity in both expectations and behavior. Not only are standards higher but students are expected to work independently and to make major choices about their course of study. For adult students returning to the unfamiliar world of postsecondary study after many years absent, the shock of transition can be particularly abrupt. Yet the pattern of resource investment at most colleges and universities strongly favors upper-division work; at the same time, comprehensive efforts to integrate first-year students into the mainstream of collegiate experience are often treated as "auxiliary enterprises"--unconnected to faculty and to core academic experiences.

II. Policy Mechanisms

To induce institutions to work toward common outcomes or to engage in desired "good practices" in undergraduate education, state leaders have a number of different policy tools available. Generally, however, they fall into two quite different classes. One set of policies is intended primarily to induce institutions **themselves** to make changes in the ways they operate. Prominent among these alternatives are assessment programs consistent with local instructional goals and funding mechanisms designed to promote experimentation with new forms of instructional delivery. A second set of policies is intended primarily to ensure and improve the level of quality present **across all institutions**. Prominent among these alternatives are assessment and performance indicators approaches intended to measure common outcomes and practices at all institutions, and investment strategies such as performance funding or categorical grants that require institutions to engage in specific activities. Among the most common types of policy tools used by states to address issues of undergraduate quality are the following.

A. Direct Intervention

One class of alternatives--relatively rarely used--involves the direct use of state policy to mandate the way instruction is delivered or the ways instructional resources are deployed. Prominent examples of this approach include:

- **mandates affecting instructional practice or curricular content**. States or university systems may occasionally act to ensure that certain topics are taught or instructional practices engaged in--especially in the "basic skills" portion of the undergraduate curriculum. Florida's "Gordon Rule" that requires all freshmen in state institutions to write 24,000 words is a prominent example. Less prescriptive is Arkansas' provision that all students take a general education curriculum of specified length, with exposure provided to a specified range of courses. Finally, state requirements for particular curricular sequences or structures are quite common in several specialized undergraduate curricula--most notably nursing and teacher education.

- **mandated workloads or requirements**. More commonly, states may specify how instructional resources (particularly faculty) are deployed--or place clear restrictions on their deployment. Ohio, for instance, requires non-native English-speaking faculty to pass a test of English proficiency. Many other states now specify a minimum teaching workload for full-time faculty in public institutions.

B. Fiscal Incentives

Far more common are policies that use financial reward or directed investment to ensure institutional attention to engaging in valued practices or for attaining valued outcomes. Among the most common alternatives under this heading are:

- **performance funding**. In its purest form, performance funding mechanisms reward institutions directly for attaining particular targets or objectives. Tennessee's performance funding program is heavily centered on undergraduate instruction and provides institutions with up to 5.5% in addition-to-base funding for such outcomes as student achievement in general education and the major field (both measured by nationally-normed standardized tests), as well as other statistical measures of quality. Missouri and New York reward institutions for the number of degrees actually completed, and the former additionally rewards institutions for each degree granted to minority students. Other variants of performance funding reward institutions for the attainment of specific targets agreed upon in negotiation between the state and individual institutions. This allows institutions with different missions to be rewarded for appropriately different types of attainment and performance.

- **categorical funding**. Categorical funding mechanisms direct resources toward specified institutional investments and practices--restricting their expenditure only to such practices. Florida and Texas, for instance, provide funds explicitly to institutions to reduce lower division class sizes in English in order to promote writing achievement. Minnesota provides funding to institutions for investments in computing and instructional technology. Minnesota's "Q-7" program at the same time directs funding toward the development of senior "capstone experiences" in all state university undergraduate curricula. Typically, such funds not only carry such restrictions on actual expenditures, but require institutions to report actual progress in engaging in such practices (e.g. reporting class sizes or numbers of capstone experiences).

- **"grant-like" programs**. Probably the most common addition-to-base incentive mechanism used by states to address undergraduate improvement is the establishment of competitive grants for particular types of programs. New Jersey's "Governor's Challenge Grants" of the mid-80's, Ohio's "Program Excellence" component of its

"Funds for Excellence" approach, Colorado's "Programs of Excellence" grants and Virginia's "Funds for Excellence" program are all examples of this relatively non-directive approach. Such approaches work well when what is wanted is substantial experimentation with new approaches by institutions, but they are unlikely to result in consistent changes across institutions. As a result, such funding mechanisms work best when coupled with a strong evaluation requirement to determine actual outcomes of those investments, and an active dissemination network to ensure that successful programs are known and imitated.

C. Accountability Mechanisms

Most states now also require specific forms of accountability for undergraduate education--either through direct legislative mandate or board policy. The two most common policy mechanisms used in this arena are:

- **institutional assessment mandates**. Some two-thirds of the states now require all institutions to periodically assess undergraduate outcomes and report what they have learned (and what they intend to **do** about what they have learned) to state authorities. The vast majority of these programs allow institutions to set their own goals for assessment and specify the particular forms of assessment that they will use to demonstrate or determine goal achievement. Most such policies, however, do specify the particular areas that institutions should assess--for instance, general education, achievement in the major field, retention and graduation rates, student and alumni satisfaction, and the like. Such programs, experience has shown, are often of considerable value in ensuring institutional attention to questions of undergraduate improvement, but because they do not allow ready comparisons among institutions, are rarely sufficient to satisfy growing demands for public accountability.

- **common performance measures**. About fifteen states now require all public institutions to report results on a common set of statistical performance indicators largely centered on undergraduate education. Performance indicator systems of this kind generally include input and "good practice" measures as well as outputs. For instance, South Carolina requires institutions to report on the number of undergraduates directly involved in faculty research activities and Tennessee reports the proportion of lower-division courses taught by full-time and senior faculty. Emerging performance indicator systems in Virginia and Wisconsin examine class-size patterns and the proportions of graduating seniors involved in capstone or other "integrative" experiences.

Both kinds of accountability mechanisms, state experience has shown, are best used in tandem with other policy mechanisms. For instance, Virginia examines the results of quite different institutional assessment programs across the state to determine if any patterns might be present to guide the next round of awards under its competitive "Funds for Excellence" program.

D. **Technical Assistance**

In this final class of policy mechanisms, state agencies act to disseminate good practice or provide direct assistance to institutions in improving undergraduate delivery. Some state boards sponsor periodic conferences or workshops on topics of undergraduate improvement. New Jersey's annual multi-cultural and gender education conference and its Institute for Teaching and Learning, or Washington's Center for Teaching and Learning are prominent examples. Often such conferences are underwritten by state boards or legislative grants, but are administered by consortia of institutions. Examples are the statewide conferences on assessment held annually in states like Colorado, Washington, Virginia, and South Carolina. Finally, technical assistance provisions can be a helpful follow-up to both categorical and grant-like funding approaches. In Minnesota, for instance, technical assistance opportunities on topics related to the use of instructional technology are designed to work in tandem with categorical funding approaches, and in Virginia periodic statewide conferences are held to disseminate the lessons learned by institutions in piloting new programs under "Funds for Excellence."

A major lesson that has emerged from almost fifteen years of state use of these policy tools is that they are best employed in combination and in the presence of an explicit statewide vision for undergraduate education. Unlike research and many other areas of institutional performance, undergraduate education is little affected by direct state action. Rather its practice is shaped by numerous academic departments and individual faculty members acting in relative isolation. As a result, the principal aim of policy should be to create appropriate and properly aligned incentives for common action at the institutional level--incentives that can be recognized and used effectively by institutional leaders to affect local change. At the same time, these policies must clearly signal to both institutions and the public that the state considers effective undergraduate education to be a priority, and that institutions will be held accountable for achieving it.