

**SECOND ANNUAL REPORT ON
THE UNIVERSITY OF NORTH CAROLINA
ENROLLMENT PLANNING**

December 15, 2000



Submitted by the University of North Carolina Board of Governors in response to
North Carolina Session Laws 1999, Chapter 237, General Statute 10.8 of the
North Carolina General Assembly

SECOND ANNUAL REPORT ON UNC ENROLLMENT PLANNING

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North Carolina Session Laws 1999, c. 237, s. 10.8 (UNC Enrollment Planning)

The Board of Governors shall report to the Joint Legislative Education Oversight Committee by December 15 of each year on enrollment planning, current and anticipated growth, and management of capacity to meet the demands for higher education in North Carolina. These reports shall continue through December 2005.

I. Enrollment Planning

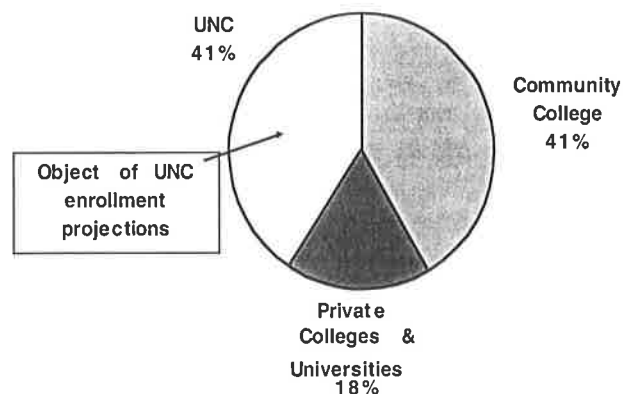
It is the statutory responsibility of the University of North Carolina to extend the benefits of higher education to the people of North Carolina. More specifically, with respect to the coming decade, the North Carolina Progress Board, in its report *Measuring Our Progress: Targets for the Year 2010*, has set the following target: "North Carolina will reach the national average in bachelor's degrees by 2010—and there will be no disparity between blacks and whites." The UNC Board of Governors, in its strategic directions for the 2000-2005 planning period and in its enrollment plan for 1998-2008, has committed the University of North Carolina to do its part to assist the state in reaching this goal.

A. Enrollment Projections: Population Pools and UNC Participation Rates

The first step in preparing an enrollment plan for UNC during the coming decade is the development of enrollment projections. Projections must be understood for what they are—planning tools that enable the institution to estimate future "demand," that is the number of students that could be expected to enroll in future years if past trends continue into the future.

The UNC projection model is designed to project future enrollment for the 16 UNC constituent institutions. It assumes that the other sectors of higher education in North Carolina will do projections for their respective institutions. Total future demand for higher education in North Carolina can be determined by summing the projections of these three sectors.

Figure 1. Fall 1999 Enrollment in North Carolina Higher Education



UNC enrollment projections are built on extrapolations of two elements: 1) pools of potential students by age group or cohort (e.g., 18-21, 22-24, 25-35, and 36 and older) for the planning period to estimate the total potential "market," and 2) the historic UNC attendance rates of these groups to determine the percent of that market that has traditionally enrolled at a UNC institution.

1) Pools of potential students by age group or cohort

UNC relies upon population projections by independent sources for the number of potential students in various age cohorts. For North Carolina high school graduates, UNC uses the most recent projections available from reliable independent sources (e.g., the National Center for Educational Statistics, the Western Interstate Commission for Higher Education, the North Carolina Department of Public Instruction). For older North Carolinians, UNC uses the most recent projections supplied by the U.S. Census Bureau. These population projections represent potential demand.

2) Historic UNC attendance rates

To determine what percent of this potential demand can be expected to enroll at a UNC institution, the projection model takes into account the UNC attendance rates of members of these various population pools or cohorts at each UNC campus over the past seven years. This reduces the focus from the entire North Carolina population (or "market") to that percentage of the population that has historically enrolled in UNC institutions. The projection model multiplies the projected participation rate of each age cohort by the projected size of that group for a given year at each campus, thus producing an annual enrollment projection for each constituent institution. Projections for the campuses are then summed to produce a total UNC projection of enrollment demand. Given the high cost of out-of-state tuition, the model assumes that the participation rate of out-of-state undergraduates will not increase.

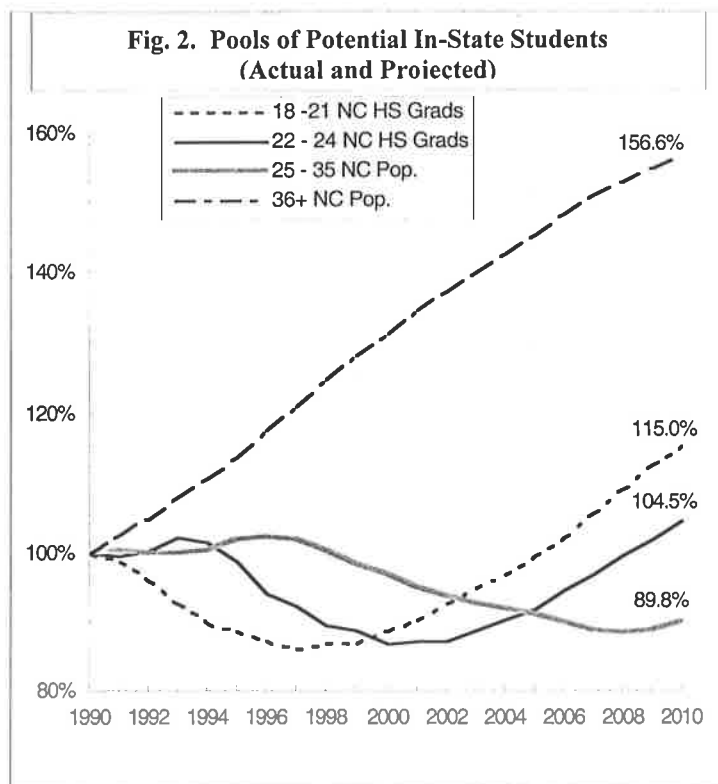


Figure 2 plots data on the actual and projected pools of potential in-state students. The data show that the primary pool of potential undergraduates—18-21 year-old public high school graduates—will increase steadily throughout the decade and by 2010 will reach an all-time high.

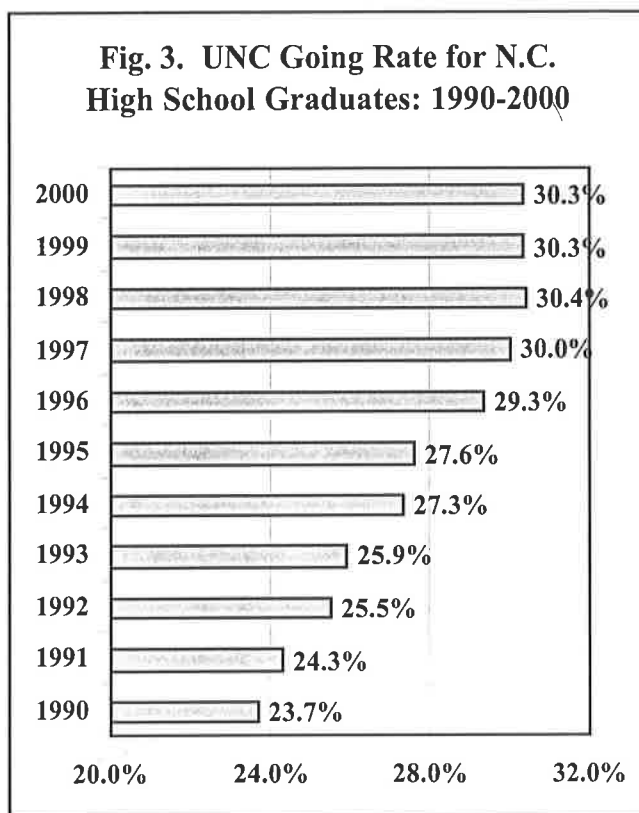


Figure 3 depicts the increase in UNC attendance rates for North Carolina high school graduates in recent years. After a significant increase in attendance rates over a 15-year period—from 21.2 percent in 1983 to 30.4 percent in 1998—the UNC going rate now appears to have stabilized at this level. However, initiatives identified below are expected to contribute to further improvements in the UNC going rate among North Carolinians.

The data in both figures suggest that traditional undergraduates, who are more likely to attend full-time, will be the dominant factor in UNC's enrollment growth. Using these data, the UNC Office of the President developed the enrollment projections for the period 1998-2008 that formed the basis for the enrollment plan developed by the Board of Governors in April 1999.

B. Planning to Accommodate Projected Enrollment Growth

Enrollment projections do not constitute an enrollment plan. Rather, they serve as a planning tool that enables institutional leaders to estimate future enrollment demand. The next step is to determine whether (and how) the institution—or, in the case of a system, all of the constituent institutions combined—can meet the projected demand. The answer requires an evaluation of several elements—e.g., institutional mission, current physical capacity, and future capacity for growth.

Development of the UNC enrollment plan thus began by asking each constituent institution to estimate the extent to which it could accommodate its projected enrollment growth. For two institutions (the North Carolina School of the Arts and UNC Asheville, a public liberal arts institution), their unique missions require that they limit growth. But for many other UNC institutions, the challenge in serving projected enrollment growth was the lack of adequate facilities.

The adequacy of UNC facilities was addressed in a comprehensive study conducted by Eva Klein and Associates (EKA) in 1998-99. This study produced the following findings:

- UNC has capacity for growth on some campuses. However, most of these campuses still have shortages of specific types of space (especially laboratories).
- Capacity is not available at all institutions where it is needed, based on projections of demand. For example, six institutions have *current* capacity needs: ECU, NCSU, UNC-CH, UNCC, UNCG, and UNCW.
- Qualitative improvements (e.g., renovations, retrofitting) are needed at many institutions.

- Most institutions require additional residence halls to house the largely undergraduate enrollment growth anticipated.

Given these findings, the Board of Governors adopted the following principles to guide the enrollment planning process:

- Use existing capacity to the fullest extent possible.
- Promote economies of scale and stronger institutional financial capacity by setting a target of at least 5,000 to 6,000 students for most campuses.
- Set enrollment targets that will use estimated capacity of most UNC campuses, but do not expect a rate of growth higher than 20 percent in the first five-year period or 33 percent for the second five-year period.
- Expand capacity through the construction of new facilities at campuses where this is required to meet their growth targets.
- Restrain enrollment growth at UNC Asheville and the North Carolina School of the Arts in recognition of their special missions.
- Serve some of the projected enrollment growth through expansion of distance education enrollment.

Applying these principles in partnership with UNC chancellors, appropriate targets for enrollment growth were adopted by the board for each campus in April 1999. Seven institutions with current capacity and, in five cases, current enrollments below 5,000 students were targeted for above-average enrollment growth—ECSU, FSU, NCA&T, NCCU, UNCP, WCU, and WSSU. To assist these institutions in meeting ambitious growth targets (10-year enrollment increases ranging from 40 to 58 percent) several measures are being implemented:

- PATHWAYS, a statewide system of guidance information for students in grades 7-12 and their parents, will raise the awareness of students about educational opportunities in all sectors of North Carolina higher education. It will be especially helpful in making students aware of enrollment opportunities at institutions with current capacity at a time when many other institutions will have to limit their enrollment growth.
- GEAR UP NC is a five-year outreach initiative, funded with \$7.38 million from the U.S. Department of Education, that is designed to increase the college going rate. The program specifically targets students who reside in 15 North Carolina counties whose college going rate is among the state's lowest and in whose school systems 50 percent or more of the students are eligible for free or reduced lunches. GEAR UP intervention strategies are designed to improve student achievement and to engage parents, counselors, teachers, school administrators, business and community leaders to provide support in accomplishing the project's objectives. By utilizing the PATHWAYS web site (ncmentor.org), students and parents will become familiar with the higher education institutions and how to prepare, enroll and pay for college. The grant provides a GEAR UP NC Coordinator in each of the participating counties.
- The UNC Board of Governors has adopted a need-based financial aid plan that, if fully funded by the General Assembly, will have a significant positive impact on students who might attend these seven institutions.
- The North Carolina General Assembly in the 1999 session appropriated \$10 million in recurring funds to assist these institutions in increasing their enrollment. These funds were used to develop comprehensive enrollment growth plans, promote greater operating efficiencies, improve instruction, enhance development offices, and strengthen facilities management capabilities.
- The General Assembly also directed the board to use \$2,000,000 from the "Strategic Initiatives Reserve" to perform campus assessments and develop enrollment growth plans for the seven institutions. Language in this section

instructed the board to report "any additional needs identified by the plans." In response, the board has included in its 2001-03 biennial budget request a proposal to appropriate an additional \$310,000 in recurring funds to each of these campuses (for a total of \$2,170,000).

In the expectation that some students would prefer the convenience of distance education, the plan assumed that approximately 7,000 students would be served off-campus by 2008.

II. Current and Anticipated Enrollment Growth

A. Fall 2000 Enrollment

The UNC enrollment plan set enrollment targets for two five-year periods (1998-2003 and 2003-2008), with the understanding that both the plan itself and the projections upon which it is based must be carefully monitored and revised as necessary. The University now has enrollment information for the first two years covered by the plan (1999-2000 and 2000-01). Table 1 compares fall 2000 enrollment with fall 1999 enrollment.

Institution	Fall '99	Fall '00	Change 1999-00
NCSU	28,011	28,619	608
UNC-CH	24,653	24,892	239
UNCG	13,322	13,125	-197
ECU	18,811	18,750	-61
ASU	12,779	13,227	448
FSU	4,875	4,487	-388
NCA&T	7,603	7,748	145
NCCU	5,595	5,476	-119
UNCC	16,950	17,241	291
UNCP	3,062	3,445	383
UNCW	9,967	10,100	133
WCU	6,580	6,699	119
UNCA	3,226	3,292	66
ECSU	1,966	2,035	69
WSSU	2,788	2,857	69
NCSA	794	768	-26
TOTAL	160,982	162,761	1,779

Complete distance education headcount for fall 2000 (included in the figures above) is not yet available. Final figures, available in February 2001, are likely to increase total headcount for fall 2000.

This year marks the first year that the University's report on fall enrollment includes off-campus enrollments. These data are included because (a) off-campus enrollments are now funded on the same basis as on-campus enrollment; (b) the board's enrollment strategies encompass both forms of enrollment; and (c) this convention is consistent with federal guidelines for reporting fall enrollments. All trend data cited in this report have been revised accordingly. The following analysis of the change in enrollment from fall 1999 to fall 2000 supports the assumptions upon which the UNC enrollment plan was based.

Headcount enrollment in fall 2000 reached a record high of 162,761 students. This is an increase of 1,779 students over the 160,982 who were enrolled in fall 1999. Institutions experiencing increases were ASU, ECSU, NCA&TSU, NCSU, UNCA, UNC-CH, UNCC, UNCP, UNCW, WCU, and WSSU.

Specific groups of students that have experienced above average increases in their enrollment this year include:

- first-time students at all degree levels (up by 3.4 percent),
- readmitted and other students who return to complete their degrees (up by 7.5 percent),
- students who are not enrolled in a degree program (up 5.1 percent),
- women (up 1.6 percent) and minority students (up 1.8 percent),
- traditional 18-21 year old students (up 2.6 percent), and
- students who are enrolled in first professional degree programs (up 2.1 percent).

The increases in first-time students and returning students suggest that enrollment growth in the future will accelerate, as UNC projections have forecast. The increases in women and minority students follow long-standing trends that have characterized University enrollments for more than a decade. The growth in 18-21 year olds and the corresponding decrease in the enrollment of 22-24 year olds and 25-35 year olds are consistent with their respective cohort's size in the population of the State, as does the enrollment of students 36 and older, which increased by 1.2 percent this fall.

Reflecting the predicted arrival of the "baby boom echo," the number of in-state UNC freshmen who graduated from high school during the previous year grew by 3.6 percent over last year. Consistent with this growth, the number of in-state first-time freshmen attending UNC institutions also increased by 3.6 percent this year. These students, and the rising numbers of high school graduates to follow in the next decade (see Figure 2), constitute the major driver of the significant enrollment growth expected in North Carolina higher education.

Each year approximately 30 percent of new undergraduates entering the University are transfer students. In recent years, this percentage has declined slightly as growing numbers of students in the community colleges stay to complete a new college transfer curriculum. The curriculum was established when the community college system converted from a quarter to a semester system in the fall of 1997. During this period of conversion, the University and the community college system adopted a Comprehensive Articulation Agreement that permits students transferring from the community colleges to UNC institutions and having completed a college transfer curriculum to satisfy general education requirements without a loss of credit. Since most community college students take their courses on a part-time basis, this fall was the first time in which these changes were expected to produce an increase in transfer student enrollments. This expectation was sustained as the number of in-state transfer students increased by 4.5 percent over the number of transfers in fall 1999. The establishment of baccalaureate degree completion programs on approximately 26 community college campuses undoubtedly contributed to this growth.

First-time enrollments of master's, doctoral, and first professional students increased by 4.4, 9.7, and 10.0 percent, respectively. Much of this increase was from graduate students who were recruited with the help of tuition remissions provided by the 1998 General Assembly. Overall enrollment at the master's level declined on campus, but increased significantly off campus. This reflects the greater convenience of distance education for master's level students, the overwhelming number of whom are pursuing professional degrees, often while working. The shift in enrollment is highly desirable, as the decline in on-campus graduate enrollment provides more places on campus for traditional undergraduates, who have greater need for the structure provided by the campus environment.

If students who did not report their race or ethnicity are counted as minority students, then minority enrollment overall increased by 1,346 students (2.9 percent) and represented 29.0 percent of the University's total enrollment. If such students are omitted, then minority enrollment increased by 726 students (1.8 percent) and represented 26.7 percent of the University's total enrollment. In either case, the University continues to enroll record numbers of minority students on its campuses.

The number of students enrolled in off-campus distance education classes this fall was 7,377, an increase of 1,312 (21.6 percent). The number of these students taking both on- and off-campus classes was 1,561 or 21 percent of the total distance education enrollment, while the number taking only off-campus classes was 5,816 or 79 percent of the total distance education enrollment. This suggests that growing numbers of regular session students are choosing to take off-campus classes, often through use of instructional technology. The most rapid growth in these classes is occurring at the undergraduate level for resident students (36.4 percent). Students taking distance education classes are predominantly part-time.

In fall 2000 the average combined SAT score of entering UNC freshmen increased by five points to a total of 1073. This increase exceeds the 4-point increases in each of the past two years and continues a reversal of the slight downward three-year trend in SAT scores that began in 1995. The average combined score of in-state students increased by six points to a total of 1067; the average for out-of-state students increased by four points to 1108. Institutions that experienced an overall increase in scores were ECU, NCSU, UNC-A, UNC-CH, UNC-C, UNC-W, WCU, and WSSU. It is particularly noteworthy that two of the eight (WCU and WSSU) were focused growth institutions.

During 1999-2000 the focused growth institutions (ECSU, FSU, NCA&TSU, NCCU, UNCP, WCU, and WSSU) developed enrollment growth plans to guide them as they seek to meet the aggressive enrollment targets set by the Board of Governors. They have just begun to implement those plans, and their full impact is not expected to be felt until fall 2001, when the first class recruited as a result of new recruitment strategies enters these institutions. Nevertheless, most of the focused growth campuses have already made significant progress. Based on their fall 2000 headcount, five grew by a combined total of 785 students, accounting for 44 percent of the UNC system's growth. Only FSU and NCCU experienced decreases in their overall enrollment. The decrease at FSU was due partly to its effort to contain the previous year's over-enrollment and return to a more sustainable growth track. At NCCU, first-time freshman enrollment increased by 13 percent, suggesting that the institution is now moving to meet future growth targets.

Especially notable is the extent to which these seven campuses are serving the major sources of projected enrollment growth—recent high school graduates and transfer students. Table 2 displays the increase in new undergraduate students (first-time freshmen and transfers) and compares the rate of growth at the focused-growth campuses to the system average.

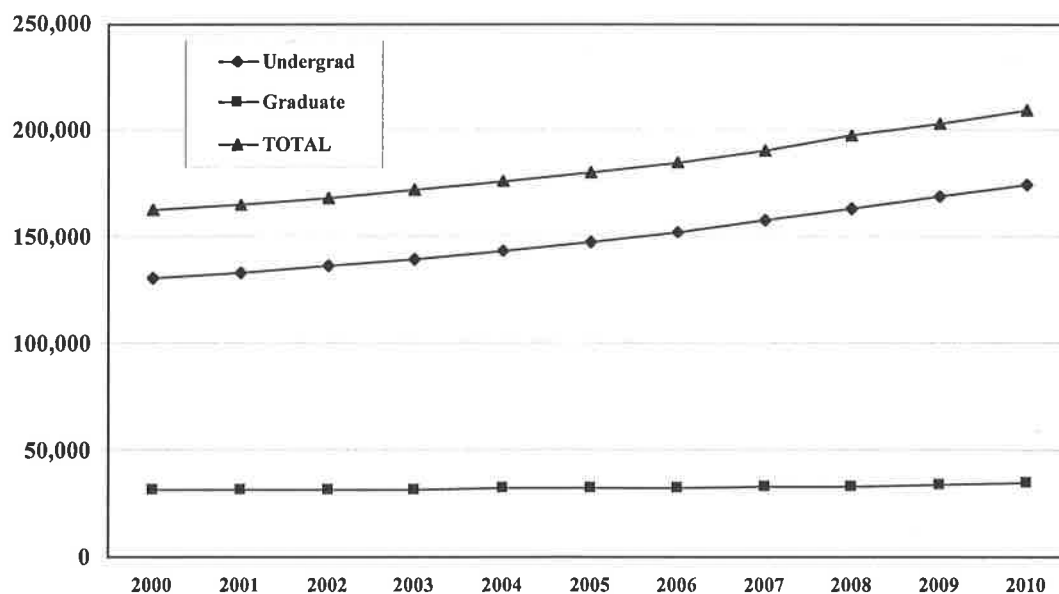
Table 2
Increase in New Students
Freshmen Transfers

	#	%	#	%
ECSU	40	9.0	7	6.9
FSU	-260	-32.3	-44	-11.2
NCAT	134	8.7	46	14.5
NCCU	87	13.3	31	11.2
UNCP	98	20.4	31	9.3
WCU	58	5.0	36	7.4
WSSU	21	4.3	-4	-1.7
UNC	634	2.6	348	3.6

As Table 2 demonstrates, six of the seven institutions accounted for 69 percent of the UNC system's increase in new freshmen. And five of the seven accounted for 43 percent of the UNC system's increase in transfer students.

The enrollment projections that formed the basis for the 1998-2008 enrollment plan were generated using enrollment data from fall 1992 to fall 1998. With two additional years of data (fall 1999 and fall 2000), projections can now be extended to fall 2010. Figure 4 displays projections for the period 2000-10. Consistent with new reporting conventions, these figures include both on-campus and off-campus enrollments.

Fig. 4. UNC Undergraduate and Graduate/First Professional Enrollments (On-Campus and Off-Campus): 2000 (Actual), 2001-2010 (Projected by UNC Model)



These projections suggest that enrollment growth during the first five years (2000-05) will be approximately 17,600 (or an 11 percent increase). Projected growth will be greater in the second five-year period (2005-10)—approximately 29,000 (or a 16 percent increase). Projected enrollment growth for the ten-year period (2000-10) is approximately 47,000 (or 29 percent). Lacking a strong historical database for off-campus enrollments, the University has chosen to be quite conservative in projecting off-campus growth. Therefore it is possible that actual enrollment growth will exceed these revised projections.

III. Management of Capacity

The 1999 UNC enrollment plan was based on the concept of maximizing the efficient use of existing capacity. The space planning standards adopted by the Board of Governors in 1998 represent an aggressive adaptation of space standards promulgated by university systems throughout the United States. Applying these standards, institutions are better able to determine how efficiently they are using existing facilities, and how many students they ought to be able to serve on campus, and can predict the kinds of new facilities they will require in order to meet the long-range enrollment targets.

Using its space planning standards, the University was able to compare the number of students projected to enroll over the coming two five-year periods with the estimated capacity at each UNC institution. In developing a plan for the first five-year period (1998-2003), it was assumed that available capacity as of 2003 would include existing facilities as well as facilities under construction or fully funded (and likely to come on-line in the next two to three years) as of January 1999. Therefore, in the case of those institutions where enrollment projections exceeded estimated capacity (NCSU, UNC-CH, UNCG, ECU, UNCC, and UNCW), enrollment targets were set at a lower level than projections so as to remain within estimated capacity. Those institutions whose estimated capacity exceeded their projected enrollment (FSU, NCA&T, NCCU, UNCP, WCU, ECSU, and WSSU) were given more aggressive targets in an effort to shift enrollment to institutions with underutilized capacity. Figure 5 illustrates this plan.

In developing a plan for the second five-year period (2004-08), it was assumed that additional capital funds would be appropriated for the renovations and new facilities required to meet that portion of UNC's projected enrollment growth that would be accommodated on campus in this time period. Figure 6 illustrates the plan by displaying (1) projected enrollment in 2008, (2) estimated capacity if no new capital funds were appropriated beyond those currently approved, and (3) campus enrollment targets for 2008. The gap between estimated current capacity and target enrollment indicates the need for new enrollment-related facilities. The figure does not take into account the need for renovations or residence halls, nor does it include facilities unrelated to enrollment (e.g., special purpose facilities, service facilities, etc.).

Fig. 5. Comparison of UNC Projected Demand, Estimated Capacity*, and UNC Enrollment Plan Targets by Institution: 2003

*Estimated capacity is based on Eva Klein study and includes current facilities and facilities under construction or fully funded.

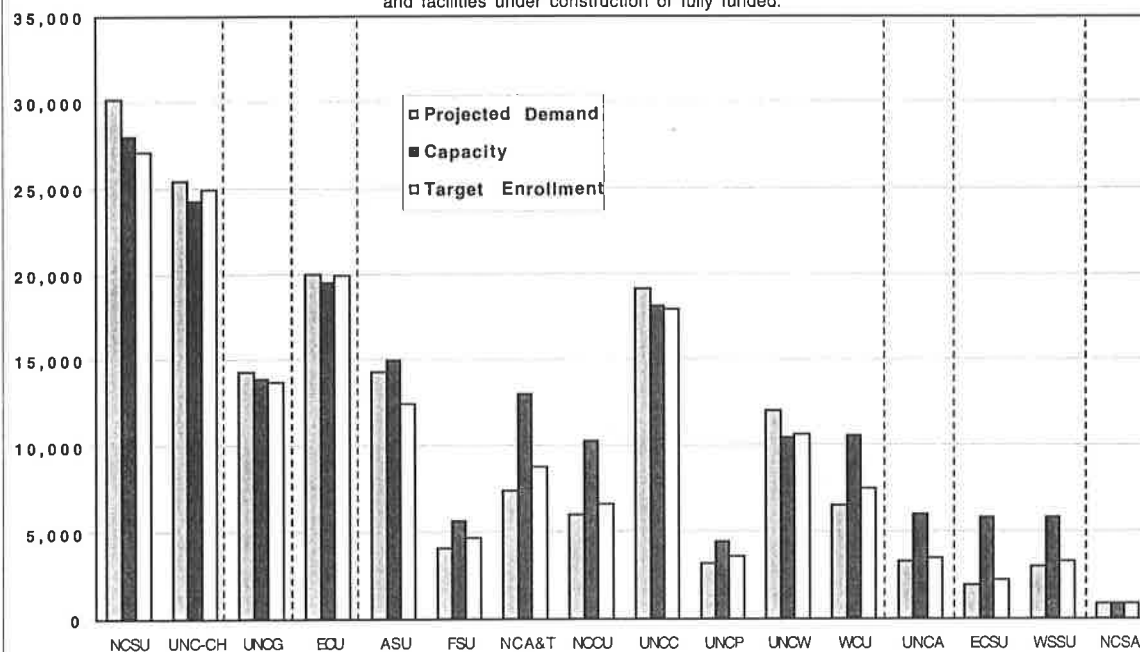
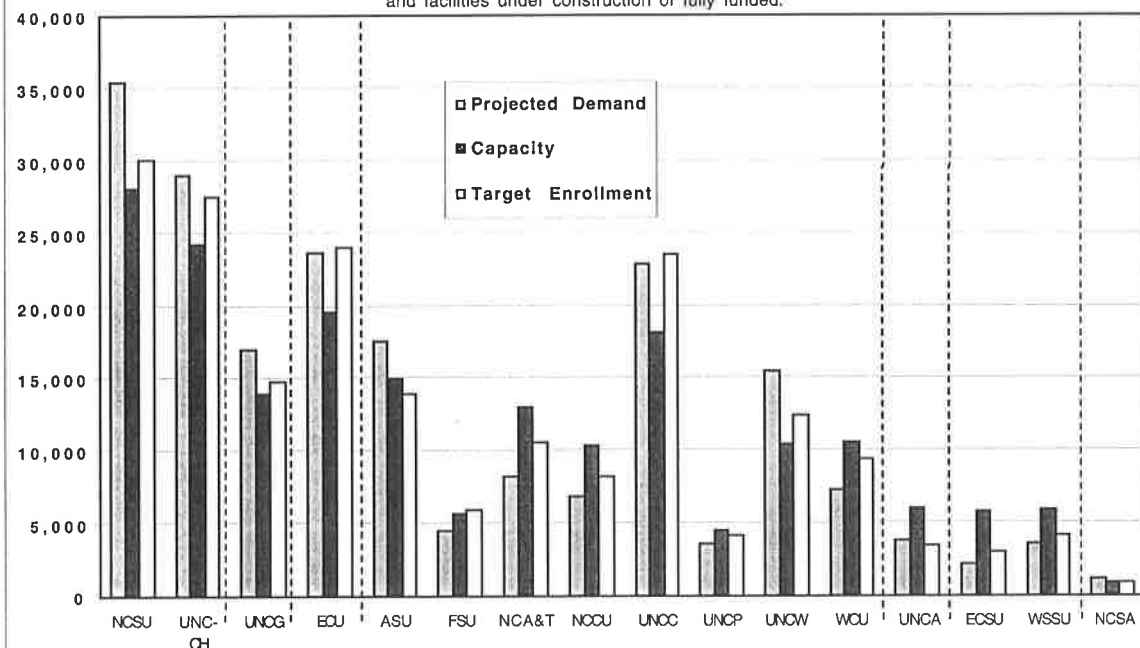


Fig. 6. Comparison of UNC Projected Demand, Estimated Capacity*, and UNC Enrollment Plan Targets by Institution: 2008

*Estimated capacity is based on Eva Klein study and includes current facilities and facilities under construction or fully funded.



Adoption of the UNC enrollment plan was followed by the development of a ten-year capital plan that included the capital projects required for institutions to meet their enrollment targets. Many of the projects in this plan were included as a part of the UNC/Community College bond referendum. With the passage of this referendum, the University has developed a schedule that projects when each project will be designed, bid, and ultimately completed. This information will be especially useful as the University begins to update and extend the enrollment plan for 2000-10, as it will be clearer when new instructional facilities will be completed (or existing facilities renovated) and hence when a space-constrained campus can begin to admit a larger number of students.

The UNC enrollment plan is built on an effort to minimize the need for new facilities over the next decade by gradually modifying traditional enrollment patterns. First, recognizing that some campuses cannot sustain the high rates of growth they have experienced over the past decade, the University hopes to shift approximately 10,000 of the projected enrollment growth to those campuses that are prepared (given adequate facilities) to absorb this enrollment by accepting 10-year growth rates of 35 percent or higher. Second the plan seeks to meet some of the projected demand off campus through distance education. Currently UNC institutions serve approximately 5,800 students off-campus. This represents 3.6 percent of the total fall headcount enrollment. By 2010 projections suggest that over 10,000 students will be taught through distance education. This would represent approximately 5 percent of total projected enrollment.

Another strategy to maximize capacity is expansion of enrollment in summer sessions. Like distance education before it was fully funded in 1998-99, summer school degree-credit instruction receives minimal state funding and so is essentially self-supporting. This constrains the ability of campuses to make full use of summer session to deliver degree-credit courses. In order to support instructional costs, most campuses must charge higher tuition in the summer and lack financial aid to assist low-income students. Therefore many students cannot afford summer school courses. Second, in order to be economically viable, courses must attract a high enrollment. This generally limits courses to those at the introductory level and makes it too costly to offer many of the upper division courses that juniors and seniors require to complete their degrees.

Adequate state funding for summer instruction would enable campuses to expand their summer offerings, thereby making year-round use of their facilities more feasible, hastening degree completion, and opening more places for future students. As a test of this thesis, the University's budget request for 2001-03 includes a proposal for funding of pilot summer programs at North Carolina State University, UNC Charlotte, and UNC Wilmington. The pilots, if funded, will run for three years. If successful, the board would follow with a request for summer school funding based on an application of the regular-term funding model. With year-round utilization of their facilities, UNC campuses would increase their effectiveness in meeting the growing demand for higher education.